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REPORT
OF THE
SANITARY STATE
OF THE
HACKNEY DISTRICT,

FOR THE YEAR 1875,
AND FOR THE TWENTY YEARS 1856—1875,

BY
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Author of numerous Essays on Sanitary Statistics.

MEDICAL OFFICER OF HEALTH FOR THE DISTRICT.

Printed by Order of the Board,

BY

ANDREW T. ROBERTS, STEAM WORKS, 5, HACKNEY ROAD, LONDON.

1876.

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SANITARY OFFICES,
TOWN HALL, HACKNEY,
May, 1876.

To the Board of Works for the Hackney District.

GENTLEMEN,

Having now acted as Medical Officer of Health for this District for a period of twenty years, I propose not only laying before you the usual sanitary statistics for the year just passed, but also a summary of the work which has been performed in my department since I held office, and, as far as possible, the vital statistics of the District since the year 1840, as a standard for future reference.

When I first took office the sanitary staff was small, and had to administer two Acts of Parliament only ; but since then many other Acts have been passed, which have created new duties and consequently very much additional work, so that it was necessary for several new officers to be appointed. The Act of 1866 introduced an additional element in sanitation, which accounts for the very great increase in the number of nuisances abated in that year, and for every subsequent year up to the present time ; but as these and many other matters in connection with the past will be more fully mentioned in a subsequent part of this report, I merely refer to them now, and shall pass them by to discuss the usual statistics and sanitary events of the past year.

Although the mortality for the whole of London exceeded that of 1874 by 1.1 per 1000 population, yet in Hackney this increase was only about one half of that number, viz., 0.6 per 1000. This is decidedly satisfactory, as the density of population in this District is rapidly increasing. Thus, Table 1 shows that in 1866 there were only 25 persons to an acre, but that last year there were as many as 86, and, as I shall point out, when considering the causes affecting the death rate of a district, that this increase in the number of the population must exert, certainly, in many parts of the Parish, a prejudicial effect on the public health.

TABLE 1.—Hackney District.

Estimated Population on July 1st,		Density of Population per acre.	Births.	* Deaths corrected.	Marriages.	No. of Births to 1000 Population
1866	103,034	26.2	3508	2282	1149	34.0
1867	107,300	27.3	3858	2135	1021	35.9
1868	111,643	28.4	3976	2129	1123	35.6
1869	116,269	29.6	3913	2520	1109	33.7
1870	120,986	30.8	4029	2356	1102	33.3
1871	125,886	31.9	4184	2820	1181	33.2
1872	129,666	32.9	4401	2506	1278	33.2
1873	133,560	33.9	4431	2594	1276	33.2
1874	137,571	34.9	4755	2799	1271	34.7
1875	141,621	36.0	4970	2948	1415	35.1

Population at Census 1871	124,951
No. of Inhabited Houses at Census 1871	19,347
No. of Families or separate Occupiers at Census 1871	26,045
No. of Persons on an average in each inhabited house at Census 1871	6.46

* NOTE.—The Deaths are corrected so as to allow for the Deaths in the Small Pox and Fever Hospitals, in the German Hospital and City of London Workhouse, which are situate in the Hackney District, also for the proportion of Deaths in other Metropolitan Hospitals, and by deducting the population in these Institutions.

This Table shows that the population of the District has probably increased during the ten years by 40,000 persons, and I am informed by Mr. Pursey that the number of assessments have kept pace with this estimated population. The increase of inhabitants of Stoke Newington is probably larger in proportion than that of Hackney, so that I am persuaded that my calculation is not too great,—indeed, it is probably too small. The increase in the number of births also supports the probability that at the middle of the year there were nearly, if not quite,

142,000 persons resident in the District under your sanitary control,—as there were 4970 births in 1875 against 3508 in 1866. The deaths are also more numerous, as in 1866 they were, when corrected for deaths in the City of London Workhouse and in the German Hospital, 2282, and in 1875, after deducting deaths in the City of London Workhouse and in the Small Pox and Fever Hospitals, as many as 2948. In making corrections for deaths of non-residents and of inmates of hospitals, I have, since the establishment of the Small Pox and Fever Hospitals, preferred placing the whole of the deaths in the German Hospital to the District, against the deaths in hospitals in the rest of London, as there is much difficulty in allowing for the population as well as the deaths in the various Metropolitan medical institutions. The number of births to 1000 population has remained pretty constant during the ten years, as the lowest was 32·3 and the highest 35·9; that for last year having been 35·1 per 1000.

TABLE II.
1875.—BIRTHS IN EACH SUB-DISTRICT.

Quarters.	Stoke Newington	Stamford Hill.	West Hackney.	Hackney.	South Hackney.	TOTALS.
First	121	62	303	474	302	1262
Second ..	124	61	286	452	301	1224
Third	140	58	282	444	323	1247
Fourth ..	134	53	277	455	318	1237
Totals ..	519	234	1148	1825	1244	4970
Per cent...	10·5	4·7	23·1	36·7	25·0	100

The total number of births registered in the District was 4970; of which 519 took place in Stoke Newington, 234 in Stamford Hill, 1148 in West Hackney, 1825 in Hackney, and 1244 in South Hackney. In 1874 there were 449 births in Stoke Newington sub-district, 218 in Stamford Hill, 1118 in West Hackney, 1804 in Hackney, and 1166 in South Hackney; so that there was a decided increase in Stoke Newington and South Hackney, and a slight increase only in the other sub-districts. The per centage of births to the total number in 1874 and 1875

in each of the sub-districts was respectively as follows : in Stoke Newington 9·4 and 10·5 ; in Stamford Hill 4·6 and 4·7 ; in West Hackney 23·5 and 23·1 ; in Hackney 37·9 and 36·7, and in South Hackney 24·5 and 25·0. As compared with 1871, the percentage of births are smaller in all the sub-districts except in Stoke Newington, in which it has increased from 9·7 to 10·5 per cent. of all the births registered in the Hackney District.

TABLE III.
1875.—DEATHS IN EACH SUB-DISTRICT.

Quarters.	Stoke Newington	Stamford Hill.	West Hackney.	Hackney.	South Hackney.	TOTALS.
First....	77	29	164	374	161	805
Second..	55	38	165	309	153	720
Third ..	77	27	132	260	148	644
Fourth..	71	21	150	324	213	779
Totals..	280	115	611	1267	675	2948

The deaths in 1875, as before stated, were in excess of those in 1874, as 2984 deaths were registered last year against 2799 in 1874. The number of deaths in each of the different sub-districts was as follows: 280 deaths in Stoke Newington against 190 in 1874; 115 in Stamford Hill against 136 in 1874; 611 in West Hackney against 579 last year; 1267 in Hackney and 1275 in 1874; and 675 in South Hackney against 619 last year. The excess of mortality from epidemic diseases in 1875 accounts to a small extent for the much larger number of deaths in Stoke Newington, as there were 36 against 20 last year. The excess of deaths from zymotic diseases was entirely due to deaths from hooping cough and diarrhoea, so that there was a large proportion of mortality under 1 year, viz, 76 against 151. The larger number of births and deaths registered in Stoke Newington last year, as compared with those registered in 1870, indicates a decidedly greater advance in its population than in any other of the sub-districts. The number of births and deaths in South Hackney also point to a rather large addition to the inhabitants, which is also supported by the diminished number of houses returned as "empty" by the collectors. The population of West

Hackney, when judged by this test, has also increased, but probably not to so large an extent as South Hackney; although there have been a considerable number of houses erected in the first-named sub-district.

TABLE IV.

DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR 1875,
THE DEATHS OF NON-RESIDENTS IN THE FEVER AND SMALL
POX HOSPITALS BEING EXCLUDED.

Cause of Death. Classes.	AGE AT DEATH.													TOTALS.
	0 1	1 2	2 5	5 15	15 25	25 35	35 45	45 55	55 65	65 75	75 85	85 and upwards		
Zymotic ..	174	97	118	57	26	12	10	11	16	12	12	—	545	
Constitutional }	81	27	33	24	70	84	79	63	58	30	7	—	556	
Local	256	111	82	46	38	69	104	143	180	190	140	33	1392	
Developmental }	197	9	7	—	5	11	8	1	—	26	71	35	370	
Violent Deaths }	15	—	9	3	9	9	11	13	5	9	1	1	85	
Totals ..	723	244	249	130	148	185	212	231	259	267	231	69	2948	
Per-centage of Deaths	24.5	8.3	8.5	4.4	5.0	6.3	7.2	7.8	8.8	9.1	7.8	2.3	100	

This Table furnishes a large amount of important information, not only as to the groups of diseases under which all the deaths in the District are placed, but also as to the ages at which the deaths occurred. The first group, which includes the seven chief zymotic diseases, as well as rheumatism, syphilis, and some others, which I think should be classed elsewhere (although they do not materially affect the figures), produced a mortality of 545, or 18.5 per cent. of the total deaths, which is much in excess of those in 1874. The number of deaths from constitutional diseases, such as consumption, hydrocephalus, gout, cancer, &c., was 556 or 18.9 per cent. against 544 in 1874,—the deaths from consumption being 334, from tabes mesenterica 10, and from cancer 69. Diseases having their seat in special organs, as

inflammation of the lungs, affections of the brain, heart, stomach, liver, &c., which are classed under the term "Local," caused a mortality of 1392, or as many as 47·2 per cent., against 1299 in 1874. The number of deaths from brain disease was 357, of which 84 were registered from inflammation, 87 from apoplexy, 51 from paralysis, 92 from convulsions, and the remainder from epilepsy. Diseases of the heart were credited with 187 deaths; of the lungs 622 deaths; of the stomach and abdominal viscera with 118 deaths; of the kidneys with 71, and other local diseases with 37 deaths. By far the most fatal of these were inflammatory diseases of the lungs, as 372 deaths were registered from bronchitis, 199 from pneumonia and 13 from pleurisy. There were also 46 deaths from liver disease, and 35 from nephria or Bright's disease of the kidneys. The deaths placed in Class 4, developmental, which include those caused by premature birth, atrophy and debility, old age, congenital malformation, were not so numerous as in 1874, as they were only 370, or 12·5 per cent. in 1875 against 385 in 1874; and violent deaths were also less, having been 85 against 94.

The ages at death varied rather considerably from the means of the twenty-three years ending 1872, published in my report for 1872, but correspond more closely with those of the ten years—1866-1875, which will be found in Table 15 of the Appendix to this report. Thus we see that out of the 2948 deaths, as many as 723 or 24·5 per cent. happened during the first year of life, the average for the twenty-three years being 21·6, and for the last ten years 24·3. This increase in the proportionate number of deaths amongst infants was to be expected, because they are the first to suffer from increased density of population, and from various other causes, such as bad food and dress; the want of warm rooms in cold weather, and varying amount of comforts. These matters will be referred to again, but they are mentioned here because a large proportion of the new residents are not of so good a class as those who lived here in former years, and many of the children, therefore, do not receive now as much care and attention as formerly. The mortality

between 1 and 2 years amounted to 244 or 8·3 per cent., and between 2 and 5 years to nearly the same, viz., 249 or 8·5 per cent., making a total of 16·8 deaths per cent. between 1 and 5 years of age against an average of 15·7 for the preceding ten years. Between 5 and 15 years there were 130 deaths, or 4·4 per cent. of the whole, and from 15 to 25 years the mortality was equal to 5 per cent., and from 25 to 35 it amounted to 6·3 per cent., all of which are below the average. Between 35 and 45 there were registered 212 deaths, or 7·2 per cent.; between 45 and 55 years of age 231 deaths occurred, or at the rate of 7·8 per cent. Above 55 and below 75 years the largest number of adult deaths were registered, as there were 239, or 8·8 per cent. between 55 and 65; and 267, or 9·1 per cent. between 65 and 75; so that the proportion in the former decennial period was larger, whilst in the latter it was smaller than the average of ten years. Above 75 years of age there were 300 deaths registered, or at the rate of 10·1 per cent., which is a satisfactory return.

TABLE V.

SHOWING MORTALITY FROM CERTAIN CLASSES OF DISEASES, THE PROPORTIONS TO POPULATION AND TO TOTAL DEATHS.—1874.

	Total Deaths.	Per centage of Deaths to Total Deaths.	Deaths per 1000 of Population.
1. Zymotic Diseases (Class I. Order 4) ..	522	17·7	3·6
2. Tubercular	437	15·6	3·1
3. Pulmonary, other than Phthisis	620	21·1	4·4
4. Convulsive Diseases of Infants under 1 year	102	3·4	0·72
5. Wasting Diseases of Infants	185	6·2	1·3

2. Includes Phthisis, Scrofula, Rickets, Tabes Mesenterica, and deaths registered as being caused by Hydrocephalus in children of more than 1 year.

4. Includes Infantile Hydrocephalus, Meningitis, Convulsions and Teething.

5. Includes Marasmus, Atrophy and Debility, Want of Breast Milk, and Premature Birth.

This Table shows the number of deaths and the per centages per 1000 population, as well as those of deaths, to total deaths from five groups of diseases which do not correspond with those of the Registrar-General. The deaths in the first class do not

include the mortality from privation, want of breast milk, excessive drinking, glanders, syphilis, thrush and other affections which have no apparent relation to one another, but which are included under Class 1, but in different "orders" by the Registrar-General. It appears that there were 522 deaths, or 17·7 of the total deaths from zymotic diseases; 437 or 15·6 per cent. from "tubercular affections," which include phthisis, scrofula, rickets, tabes mesenterica and hydrocephalus in children more than 1 year old. The proportion of deaths from these diseases to the mortality from all causes is a very good criterion of the salubrity of a district, provided it does not contain an unusually large proportion of poor residents, or have many of its courts and places excessively overcrowded. At any rate, a large proportion of deaths from these causes should cause special inquiry into the sanitary condition of those portions of the district in which they most commonly occur. The number of deaths from inflammatory diseases of the air passages was unusually large in consequence of the sudden changes and occasional great severity of the weather, viz., 620, or 21·1 per cent. of the whole; whilst that from convulsive diseases in infants was less than usual, having been only 102 against 124 in 1874, although the gross mortality was greater. The number of deaths from wasting diseases of infants, under which heading are included the mortality registered as having been caused by marasmus, atrophy and debility, want of breast-milk, and premature birth, was in the same proportion as in 1874. The per-centages of deaths from each of these groups of disease to 1000 population is given in the Table, for the especial purpose of comparison with other districts in which this plan of grouping deaths is adopted. It shows that there were 36 deaths per 10,000 population from zymotic diseases, which is rather below the average for all England; 31 from tubercular affections, which is precisely the same as in 1874; 44 from pulmonary affections, which is in excess of the ratio for 1874; 7·2 from convulsive diseases of infants, and 13 from wasting diseases of infants under 1 year old.

TABLE VI.

1665-1875.—DEATHS FROM THE PRINCIPAL INFECTIOUS DISEASES
AND DIARRHŒA.—52 WEEKS IN EACH YEAR.

	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874
Mean Temperature for each year.....	50° 3	49° 8	48° 6	51° 6	49° 5	48° 7	48° 7	50° 7	49° 1	49° 4
Small Pox	6	31	27	6	6	16	400	111	9	5
Measles	22	26	15	35	64	40	25	59	28	68
Scarlet Fever.....	98	68	49	49	247	181	85	51	27	97
Diphtheria	22	12	16	14	16	9	8	7	21	10
Whooping Cough...	56	89	72	44	102	39	76	97	81	52
Fever	75	76	63	54	60	51	34	50	53	45
Diarrhœa	125	162	75	120	97	115	123	115	161	102
Totals—Hackney	404	464	317	320	592	451	751	490	380	379
Totals for London	14,272	14,761	11,660	14,638	17,413	16,476	19,455	12,729	11,170	11,230

	Annual Average No. of Deaths 1865—1874.	Percentage of Deaths to Total Deaths. 1865—1874.	Mean Annual No. of Deaths per 10000 popu- lation-1865-1874.	Deaths in 1875.	
				Totals.	10,000 Population.
Small Pox.....	62	2.5	5.6	2	0.0
Measles	38	1.5	3.4	61	4.3
Scarlet Fever	96	3.9	8.1	78	5.5
Diphtheria	13	0.5	1.1	21	1.5
Whooping Cough	71	2.9	6.3	113	8.0
Fever	56	2.3	5.3	58	4.1
Diarrhœa	119	4.9	10.4	116	8.2
Hackney	455	18.5	40.2	449	31.6
London	14,386	19.0	45.9	11,230	

Table 6 shows the number of deaths from each of the seven principal zymotic diseases for the 11 years since 1865; the percentages for the 10 years 1865-1874; the per-centages of deaths to total deaths, and to 10,000 population. The deaths of residents from small pox varied between 2 in 1875 and 400 in 1871, but, with the exception of 1871 and 1872, the largest mortality in any other year was 31 viz., in 1866. The number of deaths from measles has been much more uniform, as the greatest number of deaths occurred in 1874, when they reached as many as 68, and the lowest in 1867, when they were only 15. The mortality from scarlet fever was intermediate as regards irregularity, between measles and small pox, the smallest number having been registered in 1873 and the highest in 1869, when the mortality reached the very high number of 247, or about $2\frac{1}{2}$ times the average of the ten years. Whooping cough caused its greatest mortality last year, viz., 113 deaths, and its smallest, 39, in 1870. The deaths from fever have varied less than from any of the other zymotic diseases, as the greatest number happened in 1866, when it was 76, and the lowest in 1871, when it was only 34. The deaths from diarrhoea have also varied largely, having been as few as 76 in 1867, and as many as 161 in 1873. Diarrhoea can scarcely be fairly classed with zymotic diseases, as there is no evidence whatever to show that it is either contagious or infectious, which all the other diseases undoubtedly are. Still, as we are even now to a certain extent ignorant of the ultimate causes of epidemic diarrhoea, we may reasonably continue its grouping with the others. We know that its fatality corresponds almost exactly with the mean weekly temperature of the summer months, and that it prevails most severely in badly drained places, especially in streets which have been built on thick deposits of refuse. There was one death from cholera or choleraic diarrhoea of a girl aged 16. She died in 18 hours, after having been exposed to a very offensive smell from an open drain. The rate of deaths from all these causes per 10,000 population was 40.2 during the years 1865-1874, and as low as 31.6 for last year, which is below the average for all England. The deaths

from measles, diphtheria and whooping cough were in excess of the average, but from scarlet fever, fever and diarrhoea were somewhat below it, whilst the number of deaths from small pox was unusually small. The epidemic of small pox raised the mean annual number of deaths per 10,000 population by 5·6, so that even after allowing for this the deaths were 3 per 10,000 less than the mean.

The death-rate for the District during the year was 20·6 per 1000 population, whilst for all London it was 23·7 per 1000. In the western districts of London it was 22·1; in the northern 22·3; in the central 26·0; in the eastern 25·5, and in the southern 24·0; so that although the mortality of the northern districts was below that for all London, yet that for Hackney was 1·7 per cent. below the northern and 3·1 per cent. below that of all London. This is the greatest disparity since 1868, which shows Hackney to have been exceptionally healthy last year. The death-rate has been calculated by the elimination of the deaths of non-residents in the Small Pox and Fever Hospitals, and the retention of all the deaths in the German Hospital, whether non-resident or not, and in the City of London Union, as a counterpoise to the deaths of inhabitants of Hackney in other Metropolitan hospitals. There have been 161 inquests held in Hackney during the year, which is equal to 5·5 per cent. of the total deaths, which is about an average proportion. As the *normal* death rate for Hackney is 22·04 and for London 21·79 per 1000, it is evident that the death-rate in Hackney is satisfactory.

I have attended 31 meetings of Sanitary and 2 of other committees, as well as 11 meetings of the View Committee, making 44 attendances on committees, which is above the average. Many important matters have been discussed at these Committees, and reports thereon brought up to the Board. Amongst these I may mention making final arrangements for the supply of death returns to me by the registrars of the sub-districts; the consideration of the dust contracts; of the state of the River Lea; of the slaughter-house regulations issued by the

Metropolitan Board of Works ; of the provisions of the Food Adulteration Act and the Artizans' Dwellings Act, and also of some of the clauses in the Public Health Act. The Committee also devoted a large amount of time to the consideration of the deposits of dust, house, and other refuse in the District, and brought up a report thereon containing recommendations which were agreed to by the Board. They also brought up a report, on your reference, as to the necessity for another mortuary in the vicinity of the Lea, in consequence of a letter received from the Chief Commissioner of Police, and also made some improvements in the old mortuary.

The mode in which the dust should be removed in the District has received earnest consideration, and it was determined to recommend that the present arrangements be continued for another year, and to ask you to refer the matter again to the Committee for report as to any or what alterations in their opinion should be made for the year 1876-7. Advertisements were therefore issued for tenders for the removal of the dust at per load and at per day, the contractor to find horse, cart, implements, and one man for each cart. The lowest tender, that of Mr. Devon, was accepted, at 2s. 4d. per load against 2s. 9d. for the previous year, but unfortunately Mr. Devon did not fully carry out his contract, so that Mr. Iszard was employed to assist, and the difference in price charged to Mr. Devon, therefore an amount of £77 9s. 9d. was stopped from his payments. The total number of loads removed was 19,387, being a somewhat larger proportion per house than in 1874. The total cost came to £2779 2s. 1d., of which £2276 16s. 7d. were paid to the contractors, and £433 16s. 6d. to the men engaged by the Board to assist in the removal. The total was about £64 less than the sum paid in 1874-5. The number of loads removed in 1873-4 was 16,091 ; in 1874-5 it was 17,427, and in 1875-1876, 19,387 loads. The reduction in the price of coals as compared with 1874-5 accounts to a certain extent for the increase ; but the additional number of houses, especially in Stoke Newington, has been the chief cause of the increase. The complaints of non-

removal of dust numbered 8833, which is above those received in the previous year. These arose from Mr. Devon not supplying the Board with the number of carts required by my orders.

I made a personal inspection of a very large number of yards in various parts of the District to ascertain the kind and extent of their paving, as well as of their drainage, and the condition of the water-butts and other water-supply apparatus, and obtained orders from the Sanitary Committee for the proper paving and drainage of those which were defective, as well as for an improvement in the water supply and water-supply apparatus. The occurrence of typhoid fever on several premises where the water became contaminated by defective arrangements of one kind or another showed the necessity for this. As before mentioned, the average death-rate from fever was smaller than that of the preceding 10 years, which may perhaps be accounted for by the improvements made in the water-supply apparatus.

During the year I have made numerous visits to places on which dust and house refuse were being shot, and especially to localities where houses were being erected on the deposits which had been made some time ago. In some cases I induced the owners of the ground to prevent the dust contractors from shooting there ; but finding myself powerless to stop the buildings I brought the matter before you on several occasions, and on October 1st asked that a case should be prepared and submitted to counsel for his opinion. In my report I pointed out the injury which the District had already sustained, and the future annoyance and injurious consequences which must hereafter accrue to the inhabitants if these deposits were not stopped. At the same time I expressed my opinion that the law as it at present stands is not adequate for our necessities, unless the Court of Chancery could interfere. I therefore drew up a list of questions to be proposed to counsel for opinion, which was embodied in a case submitted to him by Mr. Ellis in November, 1875. As the matter is one of considerable importance, I now lay before you an abstract of the case and the opinion of Mr. W. H. Michael thereon. After showing that Hackney, being

an outlying district of the metropolis, possessing a considerable quantity of ground not yet built upon, which consists to a great extent of sand and gravel, the persons building new houses frequently removed the natural ground and replaced it with offensive rubbish. That in other parts of the District very large excavations had been made, from which brick-earth had been taken away and the excavations filled in with refuse. That many houses are now being erected on the said deposits, and the Board therefore required an answer to the following questions :—

1. Whether under any of the Nuisances Removal, Sanitary, or other Acts, the Board could, by application to the Court of Chancery or any other Court, obtain an order restraining, for the future, the building of houses on such deposit as above described, until the whole area of the building is covered from wall to wall with a layer of concrete sufficiently thick to prevent the entrance of injurious gases into the houses?

Answer : I think not; the *foundations* are to be on solid ground or on concrete, and if the foundations are so constructed, I know of no Act to restrain the owner from making any such deposit as that referred to.

2. This refers to letting houses after they are built.
3. Whether it is possible that a magistrate would grant an order for the removal of the deposit under the Nuisances removal Act?

Answer : Yes, if it be proved that the accumulation is such as to be a nuisance or injurious to health. I must add that each case must stand on its own merits, as the magistrate would require some direct proof that *the* refuse in question was injurious to health.

4. This question referred to the power, if any, to refuse consent to the drainage of such houses.

Answer generally on the case. I believe that the question of a proper sub-soil to houses is one of the greatest importance to the public health, and that in the existing state

of the law it is impossible to deal with the question satisfactorily."

In consequence of this opinion an application was made to the Secretary of State for the Home Department to receive a deputation, and an interview was obtained at which the above-mentioned were pressed upon him. He admitted that the law in its present state cannot prevent these deposits and the erection of buildings thereon, and therefore promised to consider the matter, requesting at the same time that the proposed regulations be submitted to him in writing. At a subsequent meeting of the Sanitary Committee the following report was drawn up, submitted for your consideration, and carried. A copy was afterwards sent to Mr. Cross and the matter referred to the Local Government Board, who acknowledged the evil and recommended that the Metropolitan Board should obtain the insertion of clauses in some Act for remedying the evil complained of.

REPORT OF THE SANITARY COMMITTEE *re* PROPOSED REGULATIONS FOR THE ERECTION OF BUILDINGS ON DUST SHOOT.

To the Board of Works for the Hackney District.

GENTLEMEN,—Your Committee have had under their serious consideration your reference as to the conditions on which houses may be erected in the Metropolis on deposits of house refuse and other made ground. After hearing portions of the shorthand-writer's notes read, and the opinion of the Medical Officer of Health, they agreed to submit the following resolutions for your approval, and recommend that a copy be sent to the Secretary of State for the Home Department if you consider they meet the exigencies of the case.

- 1st. Resolution.—That no building be hereafter erected on made ground unless the whole internal area of the premises be covered with a thick layer of good concrete, at least 6-inches thick, to the satisfaction of the Surveyor to the District Board, or Vestry.

2nd. That all drain pipes passing under buildings so erected, or outside the walls, if within four feet thereof, shall be constructed of glazed drain-pipes embedded in a layer of concrete, at least 6-inches in thickness, to the satisfaction of the Surveyor of the Board, or Vestry.

3rd. That no building shall be erected on a foundation of house refuse until after the lapse of two years from the time of deposit; or, in the case of any other newly made ground, until the Surveyor of the Board, or Vestry, be satisfied that sufficient time has elapsed for consolidation of the ground and for cessation of decomposition in the deposited matters.

In the event of the Secretary of State for the Home Department being of opinion that it would be preferable to effect the proposed object by bye laws, then that the District Board, or Vestry, should be empowered to make bye laws in regard to houses to be hereafter built on dust shoots or other made ground for the purpose of preventing injury to the health of the future occupants.

All of which your Committee submit.

(Signed) WILLIAM BECK, *Chairman*,
and by others.

The inspection of the cow-sheds and slaughter-houses occupied a considerable time this year, as in many instances the View-Committee had to decide on the course to be taken as regards the new regulations issued by the Metropolitan Board of Works. The Committee also met on two or three occasions to discuss the regulations themselves, and advised that the distance at which new slaughter-houses might be erected from a dwelling-house should be 20 instead of 40 feet. This suggestion was adopted by you, forwarded to the Metropolitan Board, and inserted in their amended Regulations. I attended, in connection with this matter, at 9 meetings of the View-Committee. The

Committee objected to licenses being granted to three butchers, and to the applications of several others, as well as from cow-keepers, and asked the justices that the licenses should not be renewed until the works necessary for putting the premises into a proper condition had been carried out. This course was agreed to, and as all the works were done before the next meeting of the justices, the opposition was withdrawn. The number of licenses granted for the keeping of cows was 89 against 87 last year, there being several new applications; but there were only 71 slaughter-house licenses granted against 81 in 1874, as several butchers did not apply for renewal and others were refused by the justices.

In the course of the year I attended 81 summonses at the Worship Street and Clerkenwell Police Courts to give evidence for the removal of nuisances on premises situated within the district. Most were for neglect of whitewashing and repairing houses, for not providing a proper water-supply and water-supplying apparatus, or for want of proper drainage; but two were of an unusual kind, one being for illegal slaughtering of pigs in an unlicensed shed, when the defendant was fined £2 and costs; and the other was for boiling offal on premises which were unfit for the purpose, and not using proper means for preventing the escape of offensive effluvia. The defendant was fined £3 and costs.

My attention has also been directed again to the river Lea, which still remains in a bad state, although perhaps it is not so dark coloured, or offensive as in 1874. I was informed, in reply to some letters I wrote to the River Lea Conservancy Board, that the Tottenham authorities were using a new patent which they hoped would prevent any nuisance for the future, but, as I pointed out in my last report, some time must elapse before the river and cut can be restored to its proper condition.

Although the scarlet fever has not been quite so severe as in 1874, yet we have disinfected or issued notices for the disinfection of 255 houses against 224; and in all cases where the disinfection was not done by the officers of the Board, care was taken that the disinfection was satisfactorily performed. There

have also been 746 articles of bedding and clothing disinfected against 395 in 1874. Very many of these articles were removed from the houses of inhabitants in a good position, so that in a majority of cases the amount paid for the disinfection at the hot-air chamber covered the cost of the men's wages and the fuel used. In other cases, where people were too poor to pay, no charge was made. As the men are engaged on other work when not employed at the disinfecting chamber the cost to the District has been but small, as £13 14s. were received and £11 1s. paid for overtime and fuel. In addition to this the wages for ordinary time would have amounted to £9 10s., so that the work has been cheaply as well as efficiently carried out. The comparative rarity with which this disease rages severely in a given locality at the present time as compared with what it did a year or two ago, before disinfection was so thoroughly carried out, goes, I think, to a considerable extent to show that the spreading of these zymotic diseases may be materially diminished if proper means of disinfection be generally used. It is, however, somewhat singular that the mortality per 1000 population varies so little from time to time, but I hope that better results will be obtained hereafter. This subject will be more fully considered in the latter part of my report.

The sanitary work performed has been in excess of that in any previous year, although only 8 more premises were inspected than in 1874. The number of houses inspected under the provisions of the Sanitary Act, 1866, was 6137, and nuisances were found in no less than 2993, so that 50 per cent. of the houses were in a more or less bad sanitary state, either from defective paving or drainage, deficient water supply and water supply apparatus, want of proper repair, or from overcrowding. Every room in these houses was examined, and entries made in the inspection books as to their condition, as well as of the dust-bins, water butts, cisterns and water-supply apparatus; also as to the drainage of the houses, yards and out-houses, and the condition of the eaves-gutters and rain-water pipes. There were also 159 greengrocers and 74 fishmongers'

yards inspected., 126 bakehouses examined, most of them more than once, and also the rooms in 18 houses measured to determine their cubical capacity.

The number of houses inspected as before-mentioned was 6037, which contained 25,733 rooms used for dwelling in. The number of houses in the list is 12 less than in 1874, and of the rooms nearly 500 less, in consequence of many of the kitchens not being used for living or sleeping in. This is a larger departure from the average than usual, and probably arises from the empty houses being much smaller in number than they were a few years ago. The greater rate of wages received by labourers has led in this District to less overcrowding and a less frequent use of small and badly ventilated kitchens than formerly obtained. The number of families in these small houses has also decidedly diminished, as in 1875 there were only 8793 families in the 6047 houses against 9088 families in 1874, which supports the belief that more wages are earned or else a larger proportion of the wages must be spent in house rent. The number of inmates was nearly 1000 less, as there were only 37,882 persons residing in them against 38,849 in 1874. The number of nuisances discovered was greater, but this arose chiefly, if not entirely, in consequence of the carefulness with which the water supply apparatus was examined and the strictness with which the necessary repairs were enforced. As regards the diseases discovered in these houses they varied rather considerably from those in 1874, as the small pox cases were less; those of scarlet fever more, viz., 177 against 140; those of typhus fever less, viz., 24 against 42; whilst those of typhoid and simple fever were greater viz., 47 against 29. As a much larger number of cases of scarlet fever was discovered than in 1874, whilst the mortality in 1874 was greater, we are, I think, justified in assuming that although scarlet fever was less fatal it was more prevalent than in 1874. If so, I think we may fairly assume that the sanitary measures adopted have exercised a due effect on the death-rate from this disease.

There were numerous inspections of yards of houses made

by the Dust Inspector, chiefly however in the houses of the poor.

There were no less than 6262 nuisances abated during the year, which is the largest number recorded, as will be seen in the tabular statement, for twenty years. The total number from defective drainage was 1149, of which 613 consisted of choked or defective drains, 263 of deficient or defective traps, 113 of yards badly drained, and 137 of water-closet pans choked. There were 4020 nuisances arising from sanitary deficiencies in connection with the houses themselves, viz., 2047 in which the houses were dirty and dilapidated, or both; 1493 in which the water supply or apparatus was defective; 11 in which the ventilation was defective and could be improved; 469 from absence of dust-bins, and 275 from badly paved yards. Accumulations of manure were removed from 98 premises; 37 pigs and pig-sties were removed from 37 yards, and 31 cases of overcrowding abated. As regards the overcrowding I am pleased to say that the manner in which the law has been enforced of late has year by year diminished the number of overcrowding cases, whilst the publicity which has been given to their details, including the publication of the houses in which they were found, has, I believe, induced landlords to exercise greater care as regards the number of their tenants. From these causes, as I think, I have not the unpleasant duty of bringing before you any of the dreadful instances of indecent occupation such as have been mentioned in every one of my late reports. I have been considered by many to have been injudicious in thus holding up the dark spots in our district to the light, but I am quite sure that when landlords know that the houses in which indecent overcrowding is met with are specified in my annual report, they will avoid, if possible, having their houses inserted in my black list.

As regards many of the defects in houses met with during our inspections, I have to report that they were found in both old and new houses, and arose from the manner and the materials from which they were constructed. Many of the small houses and some of the larger have been built either on the sod, or still

worse on rubbish foundations : the bricks and mortar have scarcely deserved their names ; the plastering has frequently been done with a mixture of fine siftings of house refuse ; the wood-work was badly put together and made of ill-seasoned wood, which speedily shrank and gave rise to draughts and consequent colds and rheumatism. These and many other evils which obtain in the present manner of building houses would have been prevented, if the Building Bill, introduced more than once by the Metropolitan Board of Works into the House of Commons, had become law. Now, however, that public attention has been so frequently and so forcibly called to the matter, and the Secretary of State has considered some of these matters favourably, there may be some chance of the poor artizan and lower middle classes being better lodged and accommodated than at present. It will however be difficult to remedy the evils of the past without pulling down a large number of these wretchedly constructed dwellings.

The number of notices served differed but little from those in former years, except that the proportion of statutory notices was not much more than half. This has been caused by the larger number of summonses taken out during the last two or three years, and the consequently greater rapidity with which other owners have carried out the necessary works for fear of themselves being summoned. I am quite sure that a prompt and strict enforcement of the various sanitary acts is beneficial not only to tenants but landlords, because the latter will not allow tenants to occupy their houses who frequently bring them under the notice of the sanitary officers. The smallness of the rooms ; the number and careless habits of their occupants, and the bad construction of dwellings must always lead to the recurrence of nuisances, but I hope by a strict supervision over the property in this District to induce greater cleanliness as well as more care in using the dwellings, even although it may at first cause rather considerable expense to the landlords by frequent repair and cleansing of the houses.

In conclusion, I have to acknowledge the uniform support

I have received from the Sanitary Committee, as well as the efficient assistance afforded to me by all the Inspectors, who have carried out their duties to my entire satisfaction during the past year.

I now purpose treating of the mortality in this District. as far as I can obtain the data to work upon, since 1840, and of discussing, as far as may be necessary for comparison, the death rates in London and England. As the basis of all mortality tables is the population, I will first enumerate the number of inhabitants at each census.

TABLE VII.

Census.	Population Hackney Parish.	Population Stoke Newington Parish.	Houses, Hackney.	Houses. Stoke Newington.
1801	12,730	1462	2137	....
1811	16,771	2149	2769	....
1821	22,489	2670	3915	....
1831	31,047	3480	5834	....
1841	37,771	4490	6864	328
1851	53,589	4840	9725	836
1861	76,687	6608	13,218	1040
1871	115,119	9841	19,355	1556

The enormous increase in the number of inhabitants since 1801 has, of course, very materially changed the character of the District, and transformed it from a rural place of residence into almost a large city. The class of inhabitants has also changed, as in the earlier periods the majority of houses were large and occupied chiefly by persons who had retired from business or who were otherwise possessed of a good income. Now, however, a majority of the houses are comparatively small, as in 1869 more than half were assessed below £25 a year. With this alteration in the character of the houses there has been a corresponding change in the class of residents, so that we now have a large proportion of poor receiving parochial relief as well as a very considerable number of those who depend for their subsistence on their weekly wages. A greatly increased density of population

has also obtained, so that instead of less than four persons to the acre in 1801 and nearly 11 persons in 1841, we now have about 38 inhabitants to each acre. The great influence of density of population on the death rates will be shown hereafter, and it is merely mentioned here in common with other causes in action affecting the sanitary state of the District. It must also be remembered that although we derive considerable advantages from our open spaces, amounting to 467 acres, yet as our building space is reduced by that quantity, the number of persons to an acre is in reality considerably in excess of thirty-eight. In addition to the 467 acres of open spaces, there are 101 acres of water, so that the living space which can be occupied in the district for buildings and streets is only 3367 instead of 3935 acres. There are certain parts of the district which is densely filled with small houses, so that each resident, counting two children under 10 as one adult, has, when indoors, about 400 cubic feet of air. We fortunately have not very many courts, and as most of these houses are small the density of population in these streets is not likely to be henceforth largely increased.

The extension of streets and houses into the fields has gone on so rapidly that there are but few fields left in the District, or even large grounds belonging to any of the houses. The substitution of houses and comparatively impermeable roads and footways for fields or open spaces covered with trees, has rendered the district more liable to floods, partly because the removal of trees diminishes the ordinary rainfall and induces a liability to occasional storms and floods, but chiefly because most of the rain runs into the sewers instead of soaking into the ground. I therefore fear that when the outlying portions of the northern districts are more nearly covered with streets and houses, that some of our low-lying places will be occasionally injured by the flowing back of the flood waters from the sewers. The planting of trees in our streets and open spaces, especially on the highest ground, will assist in keeping the rainfall more equable than it otherwise would be. The value to this district of Epping Forest is considerable, as it will assist in remedying the evils which would

otherwise result in future years from the substitution of a space occupied by oxygen and ozone-destroying people, fires and gas, in the place of oxygen and ozone producing open country. It is true that carbonic acid readily interchanges with the other constituents of the air, but the aqueous vapour given off by the lungs and skin, which is highly charged with effete animal matter, is not so readily removed, by oxydation or otherwise, from the dwellings and localities where it is exhaled. It is this necessity for the oxydation of animal matter when in a state of change which renders pure air, containing ozone, so necessary for robust health. As ozone is very rarely indeed met with in the air of those localities which are situated at a distance from the sea or the open country, and as ozone is by far the most powerfully oxydizing agent in the air, we must expect that density of population will exercise such a prejudicial influence on the sickness and death-rate of a population as no sanitary means at present in use can avert.

There are, however, numerous other causes which affect the death-rate of a population besides those mentioned, although none act so powerfully as density of population or overcrowding. Thus we find, as a rule, in overcrowded localities that the inhabitants are poor, and consequently do not obtain the necessary medical and other comforts in sickness; the children are improperly fed, badly attended to, and insufficiently clad; the houses are often damp and draughty, and the sanitary arrangements defective or out of order. Many, also, of the inhabitants follow unhealthy occupations, and, what is far worse, take too much drink. The statistics of crime and of the duty paid on fermented liquors show the enormous increase in the quantity of drink consumed and consequent drunkenness during late years. This excess of drink beyond what the body can throw off, without injury to the organs concerned in eliminating it, is I believe one of the chief causes of the high death-rate, not only of adults but of young children, in densely populated localities. I do not think that the quantity of drink consumed by the working classes residing in this district is to be compared with that taken in

some other places, because the houses of the lower working classes are not so squalid, and the air not so bad as elsewhere, and the consequent desire for drink to remove the feelings of malaise and depression is not so great. Immigration of unmarried persons between 15 and 25 years of age, and a predominance of females, act in an opposite direction, but with much less effect on the mortality of a population. In this respect Hackney benefits to a rather considerable extent by the number of young female servants employed, but it does not participate to a like extent with the rest of London, as a reference to Table IX. will show. The late Dr. Letheby laid very considerable stress upon these causes of variation of death-rate, far more indeed than they deserved, as the variation in the death-rate of Hackney cannot have been altered by the excess of females and the immigration of healthy persons to an extent of one death per annum in each 1000 population; whilst the presence of Lunatic Asylums and the excessive mortality of their inmates counterbalances this advantage to a certain extent. That this is the case can readily be proved by calculating out what is called the *normal* death-rate for the district; that is to say, the number of deaths which would occur in the district per 1000 population if the mortality at the different ages and of the two sexes occurred at the same rate as they would by the English Life Tables. The mode of calculating the *normal* death-rate will be soon described, and it is therefore sufficient to say that the normal rate calculated on the Census of 1871, was for England 22·75, for London 21·79, and for Hackney 22·04; whilst the corrected death-rate for Hackney for 1841-51 was 19·18; for 1851-61, 19·14; for 1861-71, 20·37; for 1871-75, 20·10 per 1000 population, so that the mortality which has actually taken place in the district is much below the number calculated from the Census and the English Life Table, whilst in all London it was much above the proper death-rate.

The influence exercised on the death-rate by varying proportions of the sexes in a given population is by no means large. Thus, if we take the population of England and Wales, which consisted of 487 males and 513 females, as the basis of our

calculation, we find that by applying the English Life Table to those numbers the death-rate amongst the males would be 12·20 and amongst the females 12·26, making a total death-rate of 24·46 in every 1000 of the population ; so that there were not more than 2 deaths per 100,000 population than there would have been had the population of England been constituted according to the proportions enumerated in the English Life Tables. In Hackney the difference between the number of females and males is greater, as at the last Census there were 560 females and only 440 males in each 1000 population, but as there were only 200 females under 5 years of age in excess of males at that age, when by far the greatest difference in the death-rate occurs, and as the greatest variation in the relative number of the sexes exists between 20 and 40, when the difference in the mortality is least, the divergence arising from this cause in Hackney is but small, viz., 2·9 deaths per 10,000 population.

As regards age the variation is greater, because of the very small death-rate amongst persons between 5 and 45 years of age as compared with other periods of life. Thus the annual mortality per 1000 living at each of the different ages in 1861-71

TABLE VIII.

ANNUAL DEATH-RATE AT DIFFERENT AGES PER 1000 LIVING.

YEARS.	$\frac{0}{5}$	$\frac{5}{15}$	$\frac{15}{25}$	$\frac{25}{35}$	$\frac{35}{45}$	$\frac{45}{55}$	$\frac{55}{65}$	$\frac{65}{75}$	$\frac{75}{85}$	85
Hackney..										
1851-61	58·54	5·83	5·50	8·48	11·83	16·55	30·69	67·43	144·73	317·92
1861-71	63·67	5·48	5·73	9·46	12·94	18·60	32·77	71·23	150·82	290·36
London }										
1861-71 }	81·61	7·32	6·34	9·83	14·99	22·10	38·65	75·03	157·78	306·42
England }										
1861-71 }	68·60	6·21	7·30	9·79	12·74	17·35	30·38	62·74	140·50	298·60

was as follows :—In England, under 5 years, 68·60 ; between 5 and 15, 6·2 ; between 15 and 25, 7·3 ; between 25 and 35, 9·8 ; between 35 and 45, 12·7 ; between 45 and 55, 17·3 ; from this

age it rises rapidly to 30·4 between 55 and 65; 62·7 between 65 and 75; 140·5 between 75 and 85, and above 85 to 298·6 per 1000. In Hackney the death-rate under 5 was not so great, especially in 1851-61, when it was only 58·5, and in 1861-71 it was 63·67; that for all London being 81·6 per 1000 living at that age. A reference to the table shows the death-rate at the age-periods ranging between 5 and 15, 15 and 25, 25 and 35 to have been decidedly below the means for all England, but above 35 to have been above the rate. The table also shows that there has been a decided increase in the mortality of children under 5 years of age in 1861-71 as compared with 1851-61, and that a considerable rise has occurred in all England to a large but not to an equal extent: it is clear, therefore, that Hackney has participated with the rest of England in the causes of the increased death-rates. A reduction also occurred in the mortality of those who were aged between 5 and 15, as in Hackney the rate in 1851-61 was 5·88, and in 1861-71 it was 5·48. In England it was 6·75 in 1851-61, and 6·21 in 1861-71. As before mentioned, the rate rapidly rises at 55 years, and that above 65 it is in excess of the death-rate below 5 years, so that the mortality of a district will depend on the proportion which the population below 5 and above 65 years of age bears to the inhabitants between those ages. I therefore append a table showing the number living at each census since 1850.

TABLE IX.

NUMBER LIVING AT DIFFERENT AGES PER 1000 POPULATION.

Years.	$\frac{0}{5}$	$\frac{5}{15}$	$\frac{15}{25}$	$\frac{25}{35}$	$\frac{35}{45}$	$\frac{45}{55}$	$\frac{55}{65}$	$\frac{65}{75}$	$\frac{75}{85}$	85
Hackney } 1851	126	214	191	161	119	87	58	32	10·4	1·6
1861	130	214	194	154	122	84	56	33·3	11·3	1·4
1871	129	211	204	158	115	87	53	30·4	11·0	1·6
London .. 1871	130	203	193	170	124	89	54	28	08	010
England.. 1871	135	226	184	148	114	88	58	335	12	015

The Table shows that the number of children under 5 years has increased since 1851, although not to a great extent, but that they were a little below those of the population in London, and decidedly so as regards all England, the rate in 1871 having been 129, 130, and 135 respectively. At 5-15 years the number has slightly decreased, whilst at 15-25 years they were decidedly larger, being 214 against 191 in 1851. There was also a slight decrease at 25-35 and 35-45 years; the same at 45-55; a decrease at 55-65, viz., from 58 to 53 per 1000 population; a slight decrease at 65-75, but a slight increase at 75-85 years. The constituent parts of the population as regards age has, therefore, not varied very much in the 20 years, so that unless other causes had come into operation the mortality, as far as age is concerned, would not have altered much.

Having, then, ascertained the number per 1000 of the whole population living at each age, in order to obtain a *normal* death-rate we have only to multiply the number at each age by the death-rate as shown by the English Life Table, and add up all the products. If we wish to obtain a normal death-rate which allows for variation in the relative number of males and females, we must ascertain the number of males and females at each age and divide those numbers by the total population to get out the number per 1000 population, and then multiply each number so obtained by the average death-rate of males and of females, as shown in the Life Table for the respective ages. The sum thus obtained will show the number of deaths which would take place in the district if the deaths occurred in Hackney at the same rate as in a Life Table population. As before stated, the variation resulting from difference in the number of the two sexes is not large, but it is so considerable for age as to reduce the death-rate for all England from 24·47, which is the Life Table rate of a stationary population, to 22·75, which is the normal rate, or a difference of 17·2 deaths per 10,000 population. To simplify this, I will state that the standard death-rate for England, if it had a stationary or Life Table population, would have been, as just stated, 24·47; but as the population of England increases at

a greater rate than the Life Table standard, the large number of persons living between 5 and 65 would reduce the rate to 22·75 per 1000 persons living. The actual death-rate in 1871 was 22·60, so that it varied from the calculated death-rate by only 0·10 per 1000 population. As regards Hackney the normal death-rate is 22·04 per 1000 population; of London 21·79, and of England 22·75; so that the mortality of Hackney ought to be higher than that for all London—other conditions besides age and sex being equal—and somewhat lower than that for all England.

TABLE X.

HACKNEY.—PER-CENTAGES OF DEATHS AT DIFFERENT AGES
TO TOTAL DEATHS, 1851-75.

Years.	$\frac{0}{1}$	$\frac{1}{5}$	$\frac{5}{15}$	$\frac{15}{25}$	$\frac{25}{35}$	$\frac{35}{45}$	$\frac{45}{55}$	$\frac{55}{65}$	$\frac{65}{75}$	$\frac{75}{85}$	85	All Ages.
1851-61	202	157	63	48	65	72	73	84	105	87	44	100
1861-71	227	167	56	51	69	71	74	83	103	78	21	100
1871-75	245	155	48	54	70	73	75	81	98	79	22	100

This Table shows that the death-rate under one year has steadily increased since 1851 in greater proportion than the deaths at other ages, whilst the proportion of deaths above 65 have decidedly decreased in proportion to those amongst middle-aged persons. This is by no means satisfactory, as it shows a considerable change in the status of the inhabitants, as the mortality amongst the labouring classes is greater at the middle period of life than it is amongst well-to-do persons. For instance, the mortality per 1000 at 45-55 years of age amongst ministers of religion and persons living on their means is about 10 annually; whilst amongst surgeons it is 20, clerks 25, cabmen, &c. 29, labourers 25, printers 24, carvers and gilders 26, plumbers and glaziers 28, poulterers 30, and potters 34, whilst amongst domestic servants it is only 18. It is therefore evident

that as our population acquires a larger proportion than before of those whose death-rates are higher in middle life, in consequence of their occupations, that the mortality must increase at those ages, whereas at more advanced periods of life, when the influence of occupation is not so much felt, and the ordinary death-rate at those ages therefore prevails, we should expect that in proportion to deaths at other age-periods the mortality would be less above 65 years. The increase in the number of deaths under one year to those at all other ages is very large, as there were out of each 1000 deaths no less than 245 deaths under 1 year in the five years ending 1875, against only 202 in the decennium 1851-61, whilst the proportion between 1 and 5 had diminished, as there were not so many left at those ages who were susceptible to children's diseases. At 5-15 the number of deaths per 1000 was much smaller in 1871-75 than in 1861-61, although there was a large proportion *living* at those ages. As will be shown, this change has been caused to a great extent by the increased density of the population. On the other hand the alteration in the occupations of the residents, and perhaps other causes, has led to the deaths of 272 per 1000 in 1871-75 amongst those who were more than 15 and below 55, against 258 in the same ages in 1851-61. One of the chief of these causes is the proportion of servants to the rest of the population being smaller now than it was 20 years ago.

The chief condition affecting the mortality of a locality is the density of population. In order to ascertain as nearly as possible the effect produced, the Registrar-General has extended some investigations which he made some years since, has divided the various districts of England and Wales into seven classes, and carefully discussed the deaths at different ages. This investigation shows that density of population affects children under five years more than it does persons living at other periods of life, and that it causes an increase at 45-65 years, after which the effect of increased density gradually ceases.

TABLE XI.

No. of Group.	No of Districts.	Proximity in Yards.	Observed Mortality.	Calculated Mortality.
England and Wales } exclusive of London	.. 593 ..	.. 107 ..	.. 22·0 ..	.. 20·41 ..
1	.. 53 ..	.. 147 ..	.. 16·75 ..	.. 18·90 ..
2	.. 345 ..	.. 139 ..	.. 19·16 ..	.. 19·16 ..
3	.. 137 ..	.. 97 ..	.. 21·88 ..	.. 20·87 ..
4	.. 47 ..	.. 46 ..	.. 24·90 ..	.. 25·02 ..
5	.. 9 ..	.. 28 ..	.. 28·08 ..	.. 28·08 ..
6	.. Manchester ..	.. 17 ..	.. 32·49 ..	.. 37·70 ..
7	.. Liverpool ..	.. 7 ..	.. 38·62 ..	.. 38·70 ..

The Registrar-General states that the mortality of districts did not increase as the density of their population, but as the square root of the density. When this calculation is applied to the various groups, it will be seen that in group No. 1, in which there are 147 square yards to each person, the mortality is less than the calculated number; that in group 2, with 139 square yards to each inhabitant, the actual and calculated mortality agree; that in group 3, with 97 square yards to a person, the actual mortality is in excess; but in groups 4 and 5, with a death-rate of 24·90 and 28·08 and a space of 46 and 28 yards respectively to each individual, the calculated mortality agrees so closely with the observed as to be practically identical. They are nearly the same for Liverpool, but differ for Manchester. As regards children under 5 years the increase of mortality is most marked, as the following conclusively show:—

No. of Group	1	2	3	4	5	6	7
Mortality under } 5 years	38	48	63	82	95	112	140

This brief Table points out that whenever there are less than 147 square yards on an average to each person, the mortality, amongst children will—other things being equal—increase rapidly, that the density and mortality both increase together,

until the death-rate amongst children becomes, in the most densely crowded districts, nearly 60 per cent. in excess of that which obtains in the districts having a mean density of 97 to the acre. Now as the Hackney District contains 3953 acres, or excluding the marshes and water spaces which are situated on our borders and not in our midst, and our population was about 142,000 on July 1st, 1875, we have only 132 square yards to each inhabitant, or deducting the marshes and the Lee 117 yards, so that for some time past the effects of increased density of population has been counteracting our sanitary measures.

On reference to Table XII, showing the mortality in Hackney as well as in London since 1841, we perceive that although the death-rate has increased, yet that it has done so only to a small extent, and that, as previously mentioned, our *normal* death-rate, that is to say our rate calculated for age and sex, is higher than our mortality at the present time. Our mean death-rate for 1841-5 was 19.18 per 10,000 population; for 1851-61 it was 19.14; for 1861-71 it was 20.37, and for 1871-5 it was 20.1, our normal death-rate being 22.04. It is therefore very evident that as our death-rate now is only 1.0 per 1000 in excess of what it was in 1841-51, although our density of population is nearly three times as great as it was then, and as the class of people now living in the district would naturally give a higher death-rate than those residing here years ago—amongst the proportion of servants to the remainder of the population being smaller,—we may be well satisfied with the present rate of mortality.

The proportion of deaths amongst infants under 1 year to 1000 births in each year has increased to a larger extent than the general death-rate, thus showing the effect of increased density. The death-rate amongst infants is a far more delicate test of the influence of density of population than even of children under 5 years, as is shown by the fact that the average, which was very regular up to 1861 (having been 128 in 1841-51 and 127 in 1851-61), increased during the 10 years 1861-71 to 143 and in 1871-75 to 147 per 1000 births. It is therefore quite evident

TABLE XII.

Showing the number of births and deaths, the proportion of births to deaths, of births to population, of deaths under 1 year to births in Hackney and the death rates per 1000 inhabitants in London and Hackney for the years 1841-75. Also, death-rate per 1000 population from seven principal epidemic diseases.

Years.	Hackney	Hackney	Hackney	Hackney	Hackney	Hackney	Hackney	London	Death rate per 1000 population from seven principal epidemic diseases.		
	Number of births.	Total number of deaths.	No. of births to each 100 deaths. Un-corrected	No. of births to 1000 population.	Deaths under 1 year to 1000 births.	Death rate per 1000 population. Corrected	Death rate per 1000 inhabitants.		Englnd.	London	Hackney.
1841	1081	766	141	25·6	151	18·1	24·0	3·36	3·53	No	
1842	1182	900	111	27·0	161	20·6	23·5	3·34	3·34	separ-	
1843	1220	845	144	27·0	not pub.	18·7	24·7	4·41	4·41	ate	
1844	1359	862	158	29·1	not pub.	18·5	25·0	4·77	4·77	return	
1845	1360	824	165	28·3	119	17·1	23·2	3·99	3·99	for	
1846	1450	945	153	29·3	123	18·9	23·3	3·66	3·66	these	
1847	1527	1128	135	29·6	122	21·9	27·0	4·64	4·98	years.	
1848	1541	1040	148	28·9	116	19·5	25·8	4·28	6·53	..	
1849	1609	1230	131	29·2	130	22·3	30·1	2·93	5·74	..	
1850	1656	925	179	29·0	106	16·2	21·1	3·31	3·47	..	
averages	1398	946	146	28·3	128	19·18	24·77	3·64	4·442	..	
1851	1799	1074	157	30·5	132	18·2	23·4	3·92	4·56	..	
1852	2000	1117	179	32·6	110	18·2	22·6	4·19	4·54	..	
1853	1891	1207	156	29·8	127	19·0	24·4	3·67	4·54	..	
1854	2039	1417	144	30·9	132	19·3	29·4	4·26	5·56	..	
1855	2180	1508	145	31·8	125	20·6	24·3	3·55	4·47	..	
1856	2275	1371	165	32·1	124	18·2	22·1	3·29	4·17	3·69	
1857	2388	1470	164	32·5	137	18·7	22·4	3·87	4·18	3·23	
1858	2484	1630	153	32·7	149	20·7	23·9	4·58	5·01	3·88	
1859	2554	1561	164	32·5	117	19·3	22·7	4·37	4·96	4·04	
1860	2622	1555	168	32·2	116	19·2	22·5	2·94	3·52	2·98	
averages	2223	1391	159	31·8	127	19·14	23·77	3·864	4·551	3·56	
1861	2752	1748	157	32·7	119	19·9	23·2	3·49	4·10	3·48	
1862	2768	1753	158	31·6	109	18·9	23·6	3·64	4·77	3·52	
1863	3075	1937	159	33·9	141	20·9	24·5	4·78	5·59	4·23	
1864	3170	2148	148	33·3	151	21·7	26·6	4·61	5·38	3·99	
1865	3356	2193	153	33·8	158	20·5	24·6	4·35	4·66	3·98	
1866	3508	2405	145	34·0	161	22·1	26·5	3·91	4·72	3·66	
1867	3858	2263	170	35·9	144	19·7	23·0	3·36	3·67	3·10	
1868	3976	2247	163	35·6	142	19·0	23·6	4·45	4·59	2·91	
1869	3913	2650	148	33·7	155	21·6	24·6	4·57	5·39	5·20	
1870	4029	2476	163	33·3	146	19·4	24·1	4·47	5·02	3·73	
averages	3440	2182	156	33·8	143	20·37	24·43	4·163	4·789	3·78	
1871	4184	2814	149	33·2	152	22·4	24·6	4·55	5·55	5·96	
1872	4401	2487	174	33·2	149	19·3	21·5	3·98	3·83	3·77	
1873	4431	2594	171	33·2	151	19·1	22·5	2·92	3·39	2·85	
1874	4775	2799	170	34·7	139	20·0	22·6	3·64	3·30	2·76	
1875	4970	2948	168	35·1	146	20·6	23·7	3·30	3·89	3·17	
averages	4553	2729	166	33·9	147	20·28	22·95	3·68	3·99	3·70	

that our death-rate is rising, and must continue to rise unless the smaller houses that are built here in future shall be provided with better accommodation, with better materials, and on better foundations than hitherto. I consider it most necessary that all possible means should be used for preventing buildings being erected on unsuitable ground, in unsuitable places, and with bad materials. I therefore hope that a new Building Act will speedily be passed, so as to give extra powers to the Metropolitan Board of Works in preventing many of the building scandals which have come to light during the last few years.

The average annual number of births during the 10 years, 1841-51, was 1398; in the next decennium it was 2223; during 1861-71 it was 3440, and for 1871-75 it had increased to 4550. The number of births to population for the same time was as follows,—in 1841-51, it was 28·3; for 1851-61, 31·8; for 1861-71, 33·8, and for 1871-75 33·9, showing a considerable alteration in the character of the population since 1851. This increased birth-rate has made our population a more highly progressive one, and therefore tended, somewhat, to reduce our death-rate, as shown by the difference between the mortality of a life table or stationary and a progressive population. The number of births to deaths has increased with the births, but not quite in the same proportion as of births to population, for in the 10 years, 1841-51, there were 146 births to each 100 deaths; in 1851-61 there were 159 to each 100; in 1861-71 there were 156, and during the five years, 1871-0, the rate has increased up to 166 births for each 100 deaths. The increased number of births and somewhat diminished death-rate account for the allowed proportions.

The average number of deaths in 1841-51 was 946 per annum; in 1851-61, 1391; in 1861-71, 2182, and in 1871-75 it had mounted up to 2729. This number was in excess for the year 1871 in consequence of the very large number of deaths from small pox, which were nearly four times as numerous in this district as the deaths from cholera in 1866. The average death-rate in London per 1000 population, for each year during the

period of 1841-51, was 24·77; in the 10 years, 1851-61, it was 23·77, or 1·0 per 1000 population less than in 1841-51; in 1861-71 it was 24·43, and since 1871 the average has been 22·95, so that although the density of population is much greater the death-rate has diminished.

The columns in Table XIII, to which I now desire to call your attention, are important, because they show the mortality from zymotic diseases as far as possible in England and Wales and London and Hackney. During the years 1841-51 the returns for England are printed by the Registrar-General for six years only. The average number of deaths in the years 1841-61 from scarlet fever, small pox, measles, whooping cough, fevers, diarrhoea, and other zymotic diseases was at the rate of 19·3 per 5000; in 1861-71 it was 20·8, and in 1871-75 only 18·4, being but little above the average for 1841-51. In London the death-rate from these diseases was higher than for all England, as it was 22·2 per 5000 in 1841-51; 22·7 per 5000 in 1851-61; 23·9 per 5000 in 1861-71, but in 1841-75 it was only 19·9. It is therefore evident that the mortality from these diseases is as regular, when taken together and for a sufficiently long period, as the mortality from all causes. This will readily be seen by comparing the means of deaths from all causes and from epidemics alongside of one another, when the correspondence will be appreciated.

TABLE XIII.

Years.	ENGLAND.		LONDON.		HACKNEY.	
	Death-rate per 1000 population, from all causes.	Death-rate per 5000 population, from seven epidemic diseases.	Death-rate per 1000 population, from all causes.	Death-rate per 5000 population, from seven epidemic diseases.	Death-rate per 1000 population, from all causes.	Death-rate per 5000 population, from seven epidemic diseases.
1841-51	22·36	18·2	27·77	22·2	19·18	....
1851-61	22·24	19·3	23·77	22·7	19·14	17·80 [1856-61]
1861-71	22·51	20·8	24·43	23·9	20·37	18·90
1871-75	21·76	18·4	22·95	19·9	20·28	18·50

The mortality from these diseases was nearly as uniform in

Hackney as for all England and London, as the highest rate was 18·90 per 5000 inhabitants, and the lowest 17·80; the highest decennial death-rate from all causes being 20·37 per 1000 population, and the lowest 19·14; the variation in the zymotic rate being 1·1 and of the death-rate from all causes 1·19, or almost identical. The highest death-rate from all causes in England for any one of the decennial periods during the thirty years, 1841-71, was 22·51, viz. in 1861-71, and the lowest in the five years 1871-75, viz., 21·76, giving a range of 0·75 per 1000 inhabitants, whilst the death-rate from seven epidemic diseases varied between 20·8 and 18·4, or a range of 2·4 per 5000 population. In London the highest death-rate from all causes in 10 years was 24·77 per 1000 inhabitants, and the lowest occurred in the 5 years 1871-75, viz., 22·25, giving a range of 1·82, whilst the rates for the seven epidemics were 20·28 and 19·18, or 1·1 per 5000 inhabitants, which is precisely the same variation as for Hackney. A similar comparison between the death-rate from other diseases, as far as my present enquiries have led me, will show rather greater differences than those just mentioned. I therefore do not consider these diseases to be preventible in the sense placed on this word by the public, but I do believe that by means of isolation, disinfection, and other proper sanitary action, a large number of cases may be prevented, the intensity of the poison lessened, and the death-rate consequently reduced from its present high rate. How far this reduction can be carried, experience only can show, but I think that cases of death from scarlet fever, whooping cough and measles can never be entirely prevented, or anything approaching it, unless some living agent can be applied to the body for its protection against them in the same way as the vaccine virus is used to prevent small pox. In regard to infantile diarrhoea, as there seems to be a close connection between its excessive mortality as an epidemic and the want of proper subsoil drainage, some effective means may be adopted so as to reduce the number of deaths to a very considerable extent.

I now propose carrying this discussion somewhat further by calculating the mean number of deaths in each decennial period

since 1856 from 12 groups of diseases. By Table XIII, we see that the average death-rate from Order 1 of the Registrar-General's classification, which includes not only the eruptive fevers and diarrhoea, but also deaths from rheumatism, syphilis, privation, want of breast-milk, &c., was 20·80 in 1856-65, and 20·42 in 1866-75; so that the proportionate number of deaths remained nearly the same, although their rates oscillated between 16·8 and 23·7 in 1856-65, and between 16·4 and 28·4 during the 10 years 1866-75. From diseases of uncertain seat, such as gout, dropsy, mortification, &c., the differences were somewhat greater, as in 1856-65 the mean was 4·84 against 4·69 in 1866-75, although the range from year to year was less than in the former order. The mortality from tubercular diseases was also singularly close, having been 16·77 in 1856-65, and 16·52 in 1866-75; and the variations also were not large, as the smallest proportion in 1856-75 was 15·1, and the largest was 18·5; but in 1866-75 they were greater, viz., 15·1 in 1873, and 20·0 in 1867. The death-rate from affections of the circulatory organs has decidedly increased since 1870, as the average for 1866-75 was 5·88 against 5·04 in 1856-65, or about 15 per cent. increase. The mean rate from diseases of the respiratory organs are moderately close considering the great variations of temperature in different years. Thus in the decennium 1856-65 it was as low as 13·9; in 1866, a cold and rainy year, it was as high as 18·5, and in the next ten years it varied between 15·0 in 1869 and 22·1 in last year, when the weather was at times very cold, and nearly always very changeable. The mean for the first period was 16·39, and for the second 16·64. Deaths from diseases of the digestive and urinary organs claimed their number of victims in closely corresponding ratios, as the mean in 1856-65 was 6·50, and in 1866-75 it was 6·15. The greatest difference in the whole is, as we might have expected, amongst the deaths entered as premature birth, debility and atrophy, because in proportion to the increase of density of population so as a rule the population becomes relatively poorer; a larger number of children are born, and a greater proportion die during

TABLE XIV.

Per centages of Deaths in Hackney in each year from 1866 to 1876, arranged in 12 groups.

	Zymotic diseases.	Diseases of uncertain seat	Tubercular diseases	Diseases of the nervous system	Diseases of the circulatory organs	Diseases of the respiratory organs	Diseases of the digestive and urinary organs.	Diseases of the skin and joints	Premature birth and atrophy	Childbirth and diseases of women	Old age	Violence	Temperature
	1	2	3	4	5	6	7	8	9	10	11	12	degrees.
1856	20.9	4.9	17.6	10.7	4.2	17.1	6.8	0.5	4.9	0.9	7.3	4.2	49.1
1857	19.2	5.4	18.5	10.9	3.9	16.9	6.4	0.7	4.3	1.3	7.2	4.7	51.8
1858	21.9	4.7	14.7	12.4	4.5	16.2	7.2	0.4	5.7	0.7	7.1	4.5	49.2
1859	23.0	4.5	15.9	14.0	3.8	14.1	8.0	0.7	4.2	1.0	6.8	4.0	50.8
1860	16.8	4.6	16.8	13.7	6.3	18.5	5.2	0.4	4.6	0.7	7.1	5.3	47.0
1861	19.8	5.1	16.4	11.8	6.5	17.4	6.9	0.5	4.6	0.8	6.9	3.3	49.4
1862	21.5	6.0	17.1	12.0	6.3	13.9	6.3	0.9	5.4	0.6	6.6	3.4	49.5
1863	23.7	4.4	15.5	13.2	4.3	14.6	7.5	0.7	4.2	1.1	6.2	4.6	50.3
1864	19.8	4.4	17.1	11.2	5.7	19.1	5.5	0.5	5.0	1.3	6.8	3.6	48.5
1865	20.8	4.4	18.1	11.9	4.9	16.1	5.2	0.7	6.0	0.9	7.6	3.4	50.3
1866	22.2	4.7	16.7	11.9	4.8	15.1	5.6	0.5	6.6	1.2	7.4	3.3	49.8
1867	16.6	5.4	20.0	11.0	4.1	16.0	5.8	0.6	7.6	1.4	7.8	3.7	48.6
1868	16.6	5.2	17.8	13.7	5.9	14.4	6.3	0.6	6.9	1.2	7.9	3.5	51.6
1869	25.4	4.7	16.2	11.1	5.5	15.0	5.9	0.4	5.5	0.8	6.6	2.9	49.5
1870	21.6	4.6	16.7	11.9	6.7	15.9	5.8	0.4	5.7	1.1	6.7	2.9	48.7
1871	28.4	4.1	15.6	10.6	5.7	15.7	5.7	0.4	5.7	0.6	5.1	2.4	48.7
1872	22.2	4.8	16.2	12.5	6.0	16.2	6.3	0.5	5.9	1.5	4.8	3.1	50.7
1873	17.1	4.6	15.1	12.8	6.8	19.1	6.4	0.5	7.0	1.1	6.2	3.3	48.9
1874	16.4	4.8	15.3	13.3	6.9	17.9	7.3	0.4	6.4	1.5	6.4	3.4	48.1
1875	17.7	4.0	15.6	12.1	6.5	22.1	6.5	0.9	7.2	1.2	4.5	2.9	49.4
1856-65	20.80	4.84	16.77	12.18	5.04	16.39	6.50	0.60	4.89	0.93	6.96	4.10	Mean No of death in each 10 years.
1866-75	20.42	4.69	16.52	12.09	5.88	16.64	6.15	0.52	6.45	1.16	6.34	3.19	

the first year of birth from syphilis, improper food and want of care. The number of deaths entered as being from premature birth is sure to be relatively greater amongst a poor population, because the mothers and children do not have the care and comforts which those in a better class receive, and because many of the deaths from atrophy and premature birth should really be

ascribed to syphilis or other constitutional disease. The excess is rather considerable, as only 4·89 deaths were registered from these causes in 1856-65, against 6·45 in 1866-75. In the first decennium the death-rate did not exceed 5·5 in more than two years, whilst in the latter it was in no instance less than 5·5, having been as high as 7·6 in 1867, and 7·2 in 1875. The deaths from old age were rather less in the last decennium, having been 6·34 in 1866-75 against 6·96 in 1856-65. The deaths from violence have decreased, as the ratio was 4·10 in the first and 3·14 in the last ten years. As the number of deaths registered under this class differs very much according to the deaths from drowning in the River Lea and the Regent's Canal, but little attention need be paid to these variations, except to notice how singularly close the death-rate from these causes has remained during the period under discussion. This table deserves a much more lengthened consideration, but the length to which this report has already extended forbids the expenditure of space.

The number and kind of nuisances abated each year having been so fully considered in each report, and as but little benefit would arise by recapitulating them, I shall merely state that a Table will be found in the appendix showing the total number of nuisances abated in each year, as well as of cesspools emptied, filled up, and drained into the sewer; of houses cleansed, whitewashed and repaired; of drains which have been relaid, repaired and cleansed; and, since 1867, the yearly number of yards which have been newly paved, or in which the paving was repaired. It appears that there have been 5,246 cesspools emptied and filled up since January 1st, 1856; the largest number having been done in 1856, when no less than 1518 cesspools were destroyed, and the smallest last year, when only 18 were discovered by the sanitary staff. There is no doubt that several are still in existence, although unknown to your officers, as they are only found by a careful examination of premises respecting which complaints are made of offensive smells.

I cannot conclude this report without expressing my thanks for the kind support you have so uniformly afforded me during the whole of the long period for which I have held this important office.

I remain, Gentlemen,

Yours obediently,

JOHN W. TRIPE, M.D.,

May, 1876.

Medical Officer of Health.

Received and Ordered to be printed and circulated.

M. YOUNG,

May 24, 1876.

Chairman.

TABLE XV.

MALES AND FEMALES AGES AT DEATH IN 1866-75.

Per-centages at each Age for Hackney.

AGES.	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upwards
1856	20.6	14.3	7.2	5.1	9.0	7.1	7.3	8.7	10.0	8.2	2.2	0.3
1857	22.2	14.0	4.9	5.7	7.1	7.5	7.3	9.4	11.2	8.8	1.9	1.0
1858	22.8	16.0	7.0	4.2	6.5	7.3	6.0	9.7	11.6	6.0	2.0	0.1
1859	19.1	15.6	7.1	5.5	6.1	8.1	6.4	9.1	11.6	8.7	2.7	..
1860	19.6	18.6	5.9	4.9	7.2	6.4	7.1	8.2	11.2	8.8	1.8	0.3
1861	18.7	18.8	5.5	5.4	5.4	6.6	8.8	9.6	10.9	8.6	1.6	0.1
1862	17.3	17.6	5.5	5.2	7.6	7.8	7.7	10.2	11.4	7.3	2.3	0.1
1863	22.4	18.2	7.3	4.7	6.4	6.5	6.6	9.1	9.4	7.1	2.2	0.1
1864	22.3	16.4	5.1	6.0	7.0	7.2	7.7	6.9	11.1	7.8	2.4	0.1
1865	24.6	14.5	5.5	4.7	6.5	7.0	7.7	8.0	10.7	9.1	1.5	0.2
1866	23.5	15.9	5.5	5.5	6.9	8.3	7.1	8.4	9.6	7.5	1.7	0.1
1867	24.8	14.9	4.0	5.6	6.3	8.1	7.6	7.5	9.9	9.0	2.2	0.1
1868	25.4	13.9	4.7	5.0	7.7	6.9	7.1	7.8	10.7	8.5	2.2	0.1
1869	23.4	19.7	7.1	4.8	7.5	6.0	6.4	7.3	8.7	6.9	2.1	0.1
1870	23.7	15.3	5.9	5.2	7.2	7.0	7.9	7.8	10.6	6.9	2.4	0.1
1871	22.6	16.5	6.4	7.3	7.5	6.9	7.4	7.6	8.8	7.3	1.7	..
1872	25.6	15.2	4.3	5.4	8.1	7.7	7.5	7.1	9.6	7.6	1.8	0.1
1873	25.9	13.7	3.5	4.5	6.9	7.0	7.4	9.0	10.7	8.8	2.4	0.2
1874	23.8	15.2	5.4	4.8	6.1	7.9	7.5	8.3	10.9	7.8	2.3	0.1
1875	24.5	16.7	4.5	5.0	6.3	7.2	7.8	8.8	9.0	7.9	1.9	0.4
1856-65	20.96	16.40	6.10	5.14	6.88	7.15	7.25	8.89	10.91	8.04	2.06	0.23
1866-75	24.32	15.70	5.13	5.31	7.05	7.30	7.37	7.96	9.85	7.82	2.07	0.13
Ages	Under 1 year.	1 5	5 15	15 25	25 35	35 45	45 55	55 65	65 75	75 85	85 95	95 and upwards

Means

TABLE OF DEATHS.

REGISTERED IN THE HACKNEY DISTRICT DURING THE YEAR 1875.

AGES....	Under 1 year.	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upward	Total
CLASS 1.-ORDER 1.														
Small Pox .....	..	..	1	..	..	1	..	..	..	..	..	..	..	2
Measles	17	23	17	3	1	..	..	..	..	..	..	..	..	61
Scarlatina	5	9	40	18	4	2	..	..	..	..	..	..	..	78
Diphtheria	1	2	9	7	..	1	..	1	..	..	..	..	..	21
Croup	5	3	15	2	..	..	..	..	..	..	..	..	..	25
Whooping Cough..	43	41	25	4	..	..	..	..	..	..	..	..	..	113
Typhoid Fever ....	..	..	3	15	10	2	2	2	6	1	2	..	..	43
Typhus Fever .....	..	..	2	3	..	2	1	1	1	1	..	..	..	10
Simple Fever.....	..	..	1	..	2	1	..	..	..	1	..	..	..	5
Erysipelas	4	..	..	..	..	2	2	1	2	2	1	..	..	14
Carbuncle .....	..	..	..	..	..	..	..	..	..	3	..	..	..	3
Influenza .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery .....	..	..	..	..	1	..	..	1	..	..	..	..	..	2
Diarrhoea	78	18	3	..	..	..	..	..	4	4	9	..	..	116
Choleraic Diarrhoea	3	1	..	..	2	..	..	1	..	..	..	..	..	7
Remittent Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism .....	..	..	..	5	6	2	3	4	2	..	..	..	..	22
	156	97	116	47	26	10	10	10	16	12	12	..	..	522
ORDER 2.														
Syphilis	7	..	..	..	..	..	..	..	..	..	..	..	..	7
Order 3.														
Privation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Want of breast milk	6	..	..	..	..	..	..	..	..	..	..	..	..	6
Purpura and Scurvy	..	..	2	..	..	..	..	..	..	..	..	..	..	2
Alcohol | Del. Trem.	..	..	..	..	..	2	..	1	..	..	..	..	..	3
Intemprance	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	6	..	2	..	..	2	..	1	..	..	..	..	..	11
ORDER 4.														
Thrush	5	..	..	..	..	..	..	..	..	..	..	..	..	5
CLASS 2.-ORDER 1.														
Gout .....	..	..	..	..	..	..	..	..	..	2	1	..	..	3
Dropsy .....	..	..	1	1	..	1	..	1	..	4	1	..	..	9
Cancer .....	..	..	1	1	..	2	11	11	23	17	3	..	..	69
Mortification	4	..	3	..	1	..	2	..	2	2	1	..	..	15
	4	..	5	2	1	3	13	12	25	25	6	..	..	96
ORDER 2.														
Scrofula	2	1	..	..	1	1	..	..	..	..	..	..	..	5
Tabes Mesenterica	52	11	16	1	..	..	..	..	..	..	..	..	..	80
Phthisis	5	5	5	15	68	80	66	51	33	5	1	..	..	334
Water on the brain	18	10	7	6	..	..	..	..	..	..	..	..	..	41
	77	27	28	22	69	81	66	51	33	5	1	..	..	460

TABLE OF DEATHS—Continued.

AGES....	Under 1 year	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upward	Total
CLASS 3.-ORDER 1														
Inflamtn. of Brain ..	19	6	20	6	6	2	7	5	5	4	4	..	..	84
Apoplexy .....	..	..	..	2	..	..	9	15	22	25	11	3	..	87
Paralysis .....	..	..	..	1	..	3	1	4	10	18	12	2	..	51
Insanity .....	..	..	..	..	..	1	..	1	..	..	2	1	..	5
Epilepsy .....	..	..	..	..	3	1	1	5	2	..	1	..	..	13
Convulsions	60	27	5	..	..	..	..	..	..	..	..	..	..	92
Diseases of Brain ..	..	..	..	1	3	..	1	3	3	2	2	..	2	17
„ Spinal Cord..	2	..	1	..	..	..	..	..	..	2	1	1	..	7
ORDER 2.														
Inflamtn. of heart ..	..	..	..	2	1	3	1	2	..	1	..	..	..	10
Aneurism .....	..	..	..	..	1	1	..	1	1	..	..	..	..	4
Heart Disease	1	..	..	6	2	11	23	32	34	43	18	2	1	173
	1	..	..	8	4	15	24	35	35	44	18	2	1	187
ORDER 3.														
Laryngism Stridulus	7	3	1	..	..	..	..	..	..	..	..	..	..	11
Laryngitis	2	..	2	2	..	1	1	..	..	..	..	..	..	8
Bronchitis	95	46	25	6	4	8	9	22	39	48	55	15	..	372
Pleurisy .....	..	..	1	2	..	..	4	2	1	1	2	..	..	13
Pneumonia	47	27	20	6	7	20	17	11	13	15	6	1	..	100
Asthma .....	..	..	..	..	..	..	1	4	4	2	4	..	..	15
Lung Disease	2	..	..	..	2	2	3	..	2	1	..	1	..	13
	153	76	49	16	13	31	35	39	59	67	67	17	..	622
CLASS 3.-ORDER 4														
Gastritis .....	..	..	..	..	..	1	..	..	..	1	..	..	..	2
Enteritis	7	1	1	1	..	..	..	1	2	..	2	..	..	15
Peritonitis .....	..	..	2	..	1	3	2	1	2	..	..	..	..	11
Ulcratn. of Intestines	..	..	1	1	..	..	..	..	1	..	..	..	..	3
Hernia .....	..	..	..	..	1	..	..	2	2	1	3	1	..	10
Ileus .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Intussusception	2	..	..	..	..	..	..	2	1	1	..	..	..	6
Stomach Diseases ..	..	..	..	..	..	..	..	2	2	..	..	..	..	2
Hepatitis .....	..	..	..	..	1	2	4	4	1	1	..	1	..	14
Jaundice	4	..	..	..	..	..	..	1	1	..	..	..	..	6
Liver Disease	1	..	..	1	..	4	9	13	9	6	3	..	..	46
Spleen Disease .....	..	..	..	..	..	2	..	..	1	..	..	..	..	3
	14	1	4	3	3	12	15	22	23	10	9	2	..	118
ORDER 5.														
Nephritis .....	..	..	..	..	..	..	..	1	2	..	..	..	..	3
Nephria .....	..	..	1	4	1	2	3	6	7	7	3	1	..	35
Diabetes .....	..	..	..	..	..	..	2	2	2	1	..	..	..	7
Stone .....	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Cystitis .....	..	..	..	..	..	..	1	2	1	5	6	..	..	15
Kidney Disease .....	..	..	..	..	2	..	2	..	3	2	1	..	..	10
	..	..	2	4	3	2	8	11	15	15	10	1	..	71

TABLE OF DEATHS—Continued.

AGES....	Under 1 year	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upward	Total.
ORDER 6.														
Ovarian Dropsy....	..	..	..	..	..	..	..	1	2	1	2	1	..	7
Uterus, Disease of...	..	..	..	..	..	..	1	1	1	..	..	..	..	3
	..	..	..	..	..	..	1	2	3	1	2	1	..	10
ORDER 7. Bones and Joints, } Diseases of .. }	2	..	..	5	3	2	2	1	2	2	1	..	..	20
ORDER 8.														
Ulcer and Abscess ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Skin Disease	5	..	1	..	..	..	..	..	1	..	..	..	..	7
	5	..	1	..	..	..	..	..	1	..	..	..	..	7
CLASS 4.-ORDER 1														
Premature	131	..	..	..	..	..	..	..	..	..	..	..	..	131
Cyanosis	5	..	..	..	..	..	..	..	..	..	..	..	..	5
Spina Bifida	2	1	..	..	..	..	..	..	..	..	..	..	..	3
Other Malformatns.	6	1	1	..	..	..	..	..	..	..	..	..	..	8
Teething	5	5	3	..	..	..	..	..	..	..	..	..	..	13
	149	7	4	..	..	..	..	..	..	..	..	..	..	160
ORDER 2.														
Childbirth .....	..	..	..	..	5	11	8	1	..	..	..	..	..	25
ORDER 3.														
Old Age .....	..	..	..	..	..	..	..	..	..	26	71	33	2	132
ORDER 4.														
Atrophy & Debility.	48	2	3	..	..	..	..	..	..	..	..	..	..	53
CLASS 5.-ORDER 1														
ACCIDENT—NEGLIGEN														
Fracture—Contnsns.	1	..	2	1	2	4	2	4	..	4	1	1	..	22
Gunshot .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cut—Stab .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burns—Scalds .....	..	..	6	1	..	..	..	..	..	2	..	..	..	9
Poison .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Drowning .....	..	..	1	1	4	1	1	3	3	2	..	..	..	16
Suffocation	11	..	..	..	..	..	..	..	..	..	..	..	..	11
Otherwise	2	..	..	..	..	..	..	..	..	1	..	..	..	3
	14	..	9	3	6	5	3	7	3	9	1	1	..	61
ORDER 2.														
Murder & Manslghtr.	1	..	..	..	..	..	..	..	..	..	..	..	..	1
ORDER 3.														
Suicide .....	..	..	..	..	3	4	8	6	2	..	..	..	..	23
Not Specified .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals for all Diseases.. }	723	244	249	130	148	185	212	231	259	267	..	..	..	..

NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Booms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	No. of Houses in which Epidemic Diseases occurred.			
						Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Abbott street.....	27	87	35	170	21	....	....	....	....
Abney gardens	29	57	30	141	20	....	I	I	....
Acton street	16	60	20	89	8	....	....	....	....
Ada street	40	158	69	253	22	....	....	....	....
Albert place	6	24	18	35	2	....	....	....	....
Albert grove	9	43	14	49	4	....	....	....	....
Albert street	18	59	28	93	16	....	....	....	....
Albion road	6	30	9	37	2	....	....	....	....
Aldham place	9	45	9	59	4	....	....	....	....
Amherst terrace	15	64	17	73	5	....	....	....	....
Anderson road	26	80	36	147	19	....	I	....	....
Andrews road	13	60	18	134	15	....	I	....	....
Arthur street	33	132	45	181	20	....	....	....	....
Austin's buildings	10	20	10	24	4	....	....	....	....
Back road	14	66	19	119	7	....	5	....	....
Bailey's lane	5	16	5	20	1	....	....	....	....
Ball's buildings.....	14	57	20	95	6	....	....	....	....
Barn street.....	16	48	17	83	10	....	I	....	....
Bartholomew place	30	130	57	263	14	....	I	....	....
Bath row	14	41	14	46	5	....	....	....	....
Baxter's court	3	12	3	17	2	....	....	....	....
Bay street	20	114	37	163	14	....	....	....	....
Beckford place	8	60	15	77	6	....	....	....	....
Bentham road	6	30	10	43	2	....	I	....	....
Berger road	33	133	53	221	19	....	....	....	....
Blackstone road	43	258	68	291	11	....	I	....	....
Blanchard street	11	66	18	72	6	....	....	....	....
Blanchard road	34	194	60	219	12	....	....	....	....
Bloomfield street	60	360	109	439	21	....	....	....	I
Bohemia place	13	49	117	59	5	....	I	I	....
Boreham street	11	44	18	63	5	....	....	....	....
Bowling green street	32	109	41	148	18	....	I	....	....
Bowling green place.....	6	24	8	37	5	....	....	....	....
Bower road	18	72	23	97	6	....	....	....	....
Brooksbury walk	34	142	48	201	19	....	2	....	I
Brook street, Clapton	120	487	240	861	39	....	I	....	....
Brown's place	27	108	36	136	19	....	....	....	....
Bridge street	24	96	30	125	12	....	I	....	....
Brunswick street	49	197	74	298	37	....	....	....	....
Brunswick grove	17	68	17	67	12	....	....	....	....
Carried forward....	919	4102	1416	6345	475	....	18	2	2

NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	No. of Houses in which Epidemic Diseases occurred.			
						Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	919	4102	1416	6345	475	....	18	2	2
Caroline place	11	48	16	49	6	....	....	1	....
Caroline street, Clapton ..	49	136	58	221	19	....	1	....	1
Charles street.....	2	8	3	18	1	....	....	....	....
Chapel court	5	11	5	29	4	....	....	....	....
Chapel road	47	211	76	283	24	....	....	....	....
Chapman road	13	52	17	68	8	....	....	....	....
Church road, Homerton ..	41	176	63	289	18	....	1	....	....
Church road, West Hack- ney	5	20	6	31	1	....	....	....	....
Church street, Stoke New- ington	6	24	6	43	..	....	....	....	....
Church terrace	12	50	17	81	3	....	....	....	....
Church yard, Hackney....	9	43	16	53	4	....	....	....	1
Clarence road	46	191	69	301	23	....	2	....	....
Clarke's buildings	4	15	4	21	..	....	....	....	....
Cock and Castle lane	10	54	14	57	6	....	....	....	....
Cold Bath lane	9	28	12	43	6	....	....	....	....
College lane	19	76	29	109	21	....	....	....	....
College street	45	180	58	261	15	....	2	....	....
Conduit street and place ..	43	143	51	189	21	....	....	....	1
Conrad street	15	90	23	96	1	....	....	....	....
Cottage place	13	26	13	61	10	....	....	....	....
Cowdray street	13	78	19	78	6	....	....	....	....
Cross street	8	32	16	57	5	....	....	....	....
Cross street, South Hack- ney	19	76	29	128	7	....	....	....	....
Crozier terrace	64	257	100	439	41	....	....	....	....
Culford road	2	8	4	21	..	....	....	....	....
Derby road	32	192	70	281	24	....	....	....	....
De Beauvoir road	7	36	12	53	4	....	1	....	....
Devonshire place	6	18	6	31	6	....	....	....	....
Digby road.....	80	334	109	502	43	....	....	....	1
Downham road	12	60	19	81	9	....	....	....	....
Duncan street	50	198	79	306	33	....	....	....	....
Duncan terrace	6	30	8	31	4	....	....	....	....
Duncan square	36	150	69	283	28	....	....	....	....
Duncan place.....	4	16	8	41	2	....	....	....	....
Durham grove	8	32	10	43	8	....	....	....	....
East street	2	8	3	17	2	....	....	....	....
Eaton place	50	232	87	359	31	....	2	1	....
Carried forward....	1722	7621	2623	11399	919	....	27	4	6

NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	No. of Houses in which Epidemic Diseases occurred.			
						Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	1722	7621	2623	11399	919	....	27	4	6
Edward's lane	18	70	23	95	7	....	....	....	....
Eleanor road	8	32	11	51	4	....	....	....	....
Elgin street	58	348	79	397	40	....	....	....	....
Elizabeth cottages	20	40	20	76	15	....	....	....	....
Essex street	22	88	31	131	11	....	2	....	1
Exmouth place	23	88	31	136	17	....	....	....	....
Fairey street	13	52	16	71	8	....	....	1	1
Falcon court	11	40	13	61	5	....	....	....	....
Farm place, Homerton ..	12	48	21	76	12	....	....	....	....
Fenn street	9	36	9	53	2	....	....	....	....
Field view	6	36	9	61	1	....	....	....	....
Fisher's place	9	37	11	52	7	....	....	....	....
Floresfield road	40	152	58	227	21	....	1	....	....
Ford place	4	34	8	39	1	....	....	....	....
Fountain yard	2	4	2	6	..	....	....	....	....
Frame court	2	4	2	11	2	....	....	....	....
Frederick place.....	3	12	3	19	1	....	....	....	....
Fulham place.....	10	40	13	51	10	....	....	....	....
Gainsboro road	21	120	40	161	12	....	....	....	....
George place	8	32	8	29	..	....	....	....	....
George street, Ada street..	25	100	49	249	17	....	1	....	....
George street, London fields	15	90	17	81	9	....	....	....	....
Goring street	43	178	81	363	30	....	....	....	....
Green lanes	17	112	21	78	9	....	....	....	....
Grove, Homerton	31	124	41	131	15	....	....	....	....
Grove lane, Hackney	16	62	20	81	7	....	2	....	....
Grove lane, Stamford hill..	41	158	52	208	18	....	....	....	....
Grove road, Stamford hill..	11	44	12	52	5	....	....	....	....
Grove street	16	110	25	109	11	....	....	....	....
Grove passage	6	24	6	39	..	....	1	....	....
Hartwell street	3	12	3	16	3	....	....	....	....
Havelock road	59	250	89	368	31	....	4	....	....
Haywood's buildings	11	48	14	58	3	....	....	....	....
Hedger's grove	46	210	73	309	26	....	6	....	1
Hemsley street and place..	24	99	35	152	15	....	1	....	....
Hertford road	25	106	38	186	19	....	2	....	....
Heslop place	10	35	13	50	4	....	....	....	....
High hill ferry	154	454	181	793	61	....	....	1	....
Holmbrook street	60	244	57	309	37	....	2	....	....
Carried forward....	2634	11294	3858	16835	1415	....	49	6	9

NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Lunates.	No. of Houses in which Nuisances were found.	No. of Houses in which Epidemic Diseases occurred.			
						Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	2634	11294	3858	16835	1415	....	49	6	9
High street, Homerton ..	39	166	59	239	19	....	....	....	....
Hill street	6	24	6	31	..	....	....	....	....
Hindle street	33	138	61	246	25	....	....	....	I
Hockley street	23	78	29	149	14	....	....	....	....
Holly street	83	498	149	591	33	....	I	....	....
Homer road	33	138	45	191	22	....	....	....	....
Homerton row	6	24	6	29	3	....	....	....	....
Jane's place	8	16	8	29	4	....	....	....	....
Jerusalem gardens	45	132	56	227	20	....	I	....	....
John street, Homerton....	22	78	25	115	17	....	....	....	....
John street, London fields.	14	69	17	105	5	....	....	....	....
John street, Shacklewell ..	33	132	49	247	19	....	....	I	....
John street, West Hackney	20	78	29	117	13	....	....	....	....
Kenton road	4	16	5	31	..	....	....	....	....
Kossuth terrace.....	12	62	16	93	4	....	....	....	....
Lamb lane	12	52	22	91	6	....	....	....	....
Landfield street.....	39	234	71	295	28	....	2	....	....
Lark row	9	32	11	51	3	....	....	....	....
Laurel street	10	54	14	83	6	....	....	....	....
Lea bridge road.....	130	430	160	571	51	....	....	....	....
Lime grove.....	9	47	13	46	6	....	....	....	....
Lordship road	10	40	12	51	3	2	1	....	....
Margaret street	43	228	64	279	23	....	....	....	....
Margaret st., Stamford hill	16	66	19	68	8	....	....	....	....
Marian street.....	22	108	31	139	4	....	....	....	....
Marlow road	56	280	95	391	38	....	2	....	....
Mason's court	3	6	3	15	1	....	....	....	....
Matthias street	29	67	32	147	17	....	....	....	....
Mayfield street	40	222	61	266	21	....	2	I	....
Mead's place	16	70	21	91	10	....	....	....	....
Meadow street	12	52	15	73	..	....	....	....	....
Mehetable road.....	6	38	14	81	3	....	....	....	....
Middle street.....	5	20	8	36	4	....	....	....	....
Middlesex place	5	17	5	29	3	....	....	....	....
Millington street	30	180	52	239	19	....	....	....	....
Morning lane.....	43	172	60	241	23	....	....	....	....
Morpeth road	10	40	14	59	..	....	....	....	....
Montague terrace	15	62	19	79	7	....	....	....	....
Moscow terrace.....	8	40	9	47	3	....	....	....	....
Carried forward....	3583	15500	5244	22773	1900	2	58	8	10

NAME OF STREET OR ROAD.	Number of Houses inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of houses in which nuisances were found.	No. of Houses in which Epidemic Diseases occurred.			
						Small Pox.	Scarlatina.	Typhus Fever	Fever
Brought forward	3583	15500	5244	22773	1900	2	58	8	10
Myrtle street, Dalston	30	164	39	73	11	....	....	....	....
Newington common	11	45	14	63	3	....	....	....	....
New Church road	56	206	81	318	19	....	....	....	....
New street	12	48	17	75	5	....	....	....	....
North street	73	292	116	409	26	....	2	....	....
Nursery row	12	48	13	68	4	....	1	....	....
Orchard's street, Kingsland	12	92	16	78	2	....	1	....	....
Orchard street, Well street	16	64	21	71	4	....	....	....	....
Orchard cottages	13	50	20	86	7	....	2	1	....
Ottaway street	36	216	73	319	23	....	....	....	....
Palace road	79	289	117	436	39	....	6	1	....
Palatine houses	5	21	5	23	1	....	....	....	....
Paragon road	14	62	17	61	6	....	5	....	....
Park cottages	3	12	3	15	..	....	....	....	....
Park street, Hackney Wick	29	97	27	109	13	1	2	....	1
Park street, Stoke Newing- ton	12	84	17	81	2	....	....	....	....
Pawnbroker's alley	6	24	6	31	2	....	....	....	....
Pear tree place	10	20	10	37	8	....	....	....	....
Percy road	36	150	61	241	15	....	....	....	....
Percy terrace	32	94	41	182	16	....	....	....	....
Pickle's buildings	6	12	6	19	2	....	....	....	....
Pleasant place	6	26	6	21	..	....	....	....	....
Plough lane	10	34	13	65	6	....	....	....	....
Prince Edward's road	41	193	58	216	16	....	2	....	....
Prospect place	27	97	31	116	11	....	....	....	....
Pyle place	3	9	3	16	..	....	....	....	....
Queen's court	7	14	7	36	6	....	1	....	....
Railway crescent	28	110	36	159	13	....	....	....	1
Rayner street	6	24	10	43	..	....	....	....	....
Red Lion lane	6	24	7	33	4	1	..	....	....
Retreat, The	7	28	7	36	2	....	2	....	....
Richmond place	15	66	19	77	4	....	....	....	....
Ridley Road	4	8	4	19	4	....	1	....	....
Rigby's buildings	4	8	4	13	..	....	....	....	....
Rochester place	6	14	6	19	1	....	....	....	....
Rock place	3	12	4	31	1	....	1	....	....
Carried forward	4250	18257	6179	26569	2176	4	84	10	12

NAME OF STREET OR ROAD.	Number of Houses inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which nuisances were found.	No. of Houses in which Epidemic Diseases occurred.			
						Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	4250	18257	6179	26569	2176	4	84	10	12
Roseberry place.....	30	134	45	193	12	.....	.....	.....	.....
Rosina cottages.....	19	17	23	51	6	.....	2	.....	1
Rosina street.....	19	58	29	136	12	.....	1	1	.....
Saint John's place	20	50	20	93	16	.....	.....	.....	.....
Saint Thomas cottages ..	8	18	8	29	2	.....	1	1	.....
Samuel row	12	48	15	76	5	.....	.....	.....	1
Sanford lane	25	76	32	137	10	.....	.....	1	.....
Saxony cottages	12	34	12	51	11	.....	1	.....	.....
Shacklewell lane and green	18	96	27	143	3	.....	.....	.....	3
Shacklewell row	37	148	49	216	30	.....	.....	1	.....
Sheep lane.....	71	229	100	443	39	.....	.....	.....	.....
Shepherd's lane.....	5	22	6	31	3	.....	1	.....	.....
Shepherd's place	9	18	9	37	4	.....	.....	1	.....
Silk Milk hill and court ..	21	67	28	131	8	.....	.....	.....	.....
South row	6	18	6	25	..	.....	.....	1	.....
Spring Vale grove.....	6	18	7	29	1	.....	.....	.....	.....
Stanboro' yard	2	4	2	9	..	.....	.....	.....	.....
Stapleton's buildings	10	30	14	59	8	.....	.....	.....	1
Stelman street	22	132	34	159	14	.....	.....	1	2
Stonebridge common	41	164	53	231	23	.....	.....	.....	.....
Suther street	10	40	13	69	4	.....	.....	.....	1
Sussex street	5	22	5	31	1	.....	.....	1	.....
Swiss cottages	11	37	11	56	6	.....	.....	.....	1
Taylor's buildings.....	1	15	5	33	1	.....	.....	.....	.....
Tennyson terrace	7	38	11	53	3	.....	.....	1	.....
Templar road.....	64	287	109	446	33	..	1	.....	.....
Temple street	16	68	18	98	7	.....	.....	.....	1
Thomas street	19	74	23	111	14	.....	1	.....	.....
Tottenham road.....	109	424	171	712	48	.....	6	1	1
Tranquil place	9	33	12	51	6	.....	.....	.....	.....
Tryon's court.....	4	12	4	17	4	.....	.....	.....	.....
Tudor grove	17	73	31	149	11	.....	1	.....	1
Tyssen passage, Dalston ..	16	60	23	119	10	.....	.....	.....	.....
Tyssen street, Dalston....	21	84	31	163	12	.....	.....	.....	3
Tyssen street, Stoke New- ington	19	74	28	149	11	.....	.....	.....	.....
Union street, West Hack- Hackney.....	33	117	45	181	22	....	2	.....	1
Union street, Stoke New- ington	17	68	24	126	9	....	1	.....	.....
Carried forward.....	4998	21164	7262	31412	2585	4	102	20	29

NAME OF STREET OR ROAD.	Number of Houses inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which nuisances were found.	No. of Houses in which Epidemic Diseases occurred.			
						Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward ..	4998	21164	7262	31412	2585	4	102	20	29
Union row	8	32	12	51	3	....	....	....	....
Urban place	17	68	34	167	11	....	....	....	....
Victoria grove	18	90	27	99	5	....	3	....	....
Victoria road	66	396	96	441	30	2	3	....	1
Victoria street .....	..	..	..	..	..	....	....	....	....
Vyner street	67	287	123	493	39	....	6	....	....
Wallis road	8	34	10	59	4	....	....	....	....
Warburton road and square	96	382	136	569	47	....	10	....	2
Warwick villas	35	140	39	187	6	....	....	....	....
Waterloo place	28	84	31	141	16	....	....	....	....
Water lane	28	86	34	162	12	....	....	....	....
Wellington street	64	322	106	401	29	....	....	....	....
Well street	30	128	33	149	11	....	2	....	....
West street, Triangle	6	24	6	31	4	....	....	....	....
West street, Well street ..	15	57	19	78	4	....	1	....	....
Western place	14	62	21	93	8	....	....	....	....
Wetherell road	9	36	9	47	7	....	....	....	....
Wharf road	10	43	22	94	7	....	3	....	....
White Hart court	4	8	4	17	2	....	....	....	....
White Post lane	7	34	9	42	3	....	....	....	....
Whitmore road	26	186	59	209	18	....	2	....	....
Wick road	228	993	349	1406	61	....	10	1	1
William street	20	122	38	186	4	....	10	....	1
Winchester place	4	16	7	36	1	....	....	....	....
Windsor road	20	110	28	103	9	....	....	....	....
Winslade road	61	286	79	343	9	....	....	....	1
Wood street	34	136	49	203	23	....	1	1	....
Woodland street	64	266	109	438	15	....	1	....	1
Woolpack place	12	48	14	67	5	....	....	....	1
York buildings	10	20	10	39	10	....	....	....	....
York place	4	32	6	32	1	....	....	....	....
Other places	7	41	14	57	4	....	....	....	....
Other cases of Epidemic Disease .....	..	..	..	..	..	1	33	2	10
TOTAL	6037	25733	8793	37882	2993	7	177	24	47

Year.	Cesspools emptied, filled up, and drained into Sewer.	Repairs, Cleanse or Whitewash.	Choked Drains cleansed or repaired, or re-laid.	Yards paved or paving re-laid.	Total Number of Nuisances abated.
1856	372	93	164	....	1567
1857	351	226	337	....	1789
1858	1518	132	138	....	2515
1859	447	85	138	....	1224
1860	264	182	256	....	1226
1861	300	252	294	....	2487
1862	257	247	358	....	1235
1863	330	367	359	....	1696
1864	169	211	411	....	1410
1865	213	252	433	....	1512
1866	498	1415	735	....	4260
1867	166	1217	565	508	5811
1868	67	1321	374	461	3923
1869	43	1767	277	228	4354
1870	31	2388	653	326	4240
1871	113	2530	344	226	5180
1872	27	2021	350	130	3909
1873	15	2437	536	343	5406
1874	47	2422	738	381	6110
1875	18	1947	757	245	6262

Privy Cesspools emptied, filled up, and drained into the Sewer...	18
Choked drains cleansed or repaired, or relaid...	613
New Traps provided	263
Yards drained	118
Water-closet pans choked	137
Total number of Nuisances from defective drainage...	1149

Yards paved or paving re-laid	275
Number of Dust Bins provided	469
Houses repaired, whitewashed, &c.	2047
No. of Houses in which the ventilation has been improved	11
„ to which a better supply of water has been given or the apparatus improved	1493

Total number of nuisances from defect in houses ... 4295

Number of houses disinfected...	255
„ overcrowded	31
Pigs removed from separate premises	37
Stable dung and other refuse removed (excluding dust)	98
Filthy places cleansed	136
Other nuisances removed	261
	818

Total number of nuisances abated ... 6262

Number of Lodging Houses' Notices served	196
„ Notices for disinfecting premises	255
„ Letters sent out	673
„ Preliminary notices served	3618
„ Peremptory	1597
„ Statutory	1317
„ Persons summoned before a magistrate...	81
„ Copies of summonses and orders made out	486
„ Dust complaints received and attended to	3019
„ Bodies deposited and taken to the Mortuary	39
„ Houses from which bedding, &c. was removed to be disinfected at the Board's Apparatus	51
„ Articles disinfected at Board's Apparatus	746
„ Fish condemned unfit for human food ...pads	76

PREMISES INSPECTED

DURING THE YEAR 1875.

Number of Houses inspected under the Sanitary Act, 1866	6037
„ „ in which Epidemic disease has appeared	255
„ Premises inspected from complaints received...	465
„ Cow sheds inspected	89
„ Slaughter houses inspected	77
„ Greengrocers' yards inspected	159
„ Fishmongers' and Poulterers' yards inspected	74
„ Bakehouses inspected	176
„ Houses measured as well as inspected ..	18
„ Urinals inspected	221
Total number of premises inspected. .	<u>7571</u>

Board of Works for the Hackney District

REPORT

ON THE

SANITARY CONDITION

OF THE

HACKNEY DISTRICT,

For the Year, 1876,

BY

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1877;

Pl. 15012 . e. $\frac{30}{1876}$



SANITARY OFFICES,

TOWN HALL, HACKNEY.

April 26th, 1877.

To the Board of Works for the Hackney District.

GENTLEMEN,

The chief sanitary event in the District for the year, 1876, was the outbreak of Small Pox, which was by no means expected, except by those who had carefully examined the death rates from this disease in the years 1873, 1874, and 1875; and although the epidemic might fairly have been looked for, yet, until the first week of November, it could scarcely have been expected that it would be so severe.

The first case reported to me in Hackney was on the 24th of July, which occurred in a servant, and was contracted outside the district. The second case happened in Banbury Terrace, nearly a quarter of a mile away from the first, both being in South Hackney. The next was at Upper Clapton, also a servant, on September 16th; the next on the 18th, in Mare Street; then on the 26th, in Brooksby's Walk; on October 4th, in Navarino Road, Dalston; and on the 6th, when the epidemic commenced—cases occurred in Homerton, South Hackney, and Kingsland. During the remainder of the month of October

until the 28th, there was no marked localisation of the disease, cases having cropped up in the Clapton Park Estate, in Clapton, Kingsland, Shacklewell, and Stoke Newington; but on the 30th there was a severe outbreak reported in Homerton, South Hackney, and Hackney Wick, with other cases in Kingsland and Lower Clapton, no less than 14 being in Homerton. From this time the progress of the disease in the various districts is shown by the following facts, viz., that at the end of the year—say January 4th, 1877, we had received notice of 506 cases, of which 65 had occurred in Hackney, 61 in Clapton, chiefly near to Homerton, 165 in Homerton, 65 in Hackney Wick, 80 in South Hackney, 24 in Dalston, 14 in Kingsland, 7 in De Beauvoir Town, 4 in Stoke Newington, 1 in West Hackney, and 1 in Stamford Hill. Also, that by the 29th of March, we had received notice of 827 cases, being 321 in the three months. The 827 cases occurred as follows:—261 in Homerton, 127 in Clapton (including the Clapton Park Estate), 117 in Hackney, 114 in South Hackney, 93 in Hackney Wick, 48 in Dalston, 28 in Kingsland, only 15 in Stoke Newington, 11 in West Hackney, 10 in De Beauvoir Town, and 3 in Stamford Hill. It is therefore evident that while the focus of the disease was concentrated after a short time in Homerton and the adjacent districts of South Hackney, Clapton Park, and Hackney Wick, yet that it did not commence in Homerton. Also, that after allowing for the time during which the disease remains dormant in the system, the small pox infective matter must have been extensively spread about Homerton on the 14th of October or thereabouts.

The number of Hackney cases under treatment in the hospitals by the Metropolitan District Asylum Board, at different times, will afford a fair indication of the severity and progress of the epidemic. In the first week of October there were 10 cases under treatment, which had increased up to 27 before the end of the month. In the first week in November there

were 45; and by the end there were 123; so that the number of new cases in excess of the deaths and recoveries in the month were 78. In the first week in December the highest number of Hackney patients in the hospitals was attained, viz., 160, and from this the number gradually decreased to 93. In the first week in January there were but 80, but before the end of the month there were as many as 119. From this time the number under treatment became gradually less until the second week in March, when there were only 49; but there was a revival of the disease in the third week, so that in the second week in April there were 72. The following shows a comparative statement of the number of cases and of deaths which came to our knowledge in corresponding months during the course of the two epidemics.

Table I.—Small Pox.

SHOWING THE NUMBER OF CASES REPORTED, AND THE DEATHS
IN THE *Hackney* DISTRICT IN THE CORRESPONDING MONTHS
OF THE EPIDEMICS, 1871-2 AND 1876-7.

	Hackney Cases.		Hackney Deaths.		London Deaths.	
	1871-2	1876-7	1871-2	1876-7	1871-2	1876-6
1st month	13	47	7	8	101	106
2nd "	92	209	27	37	207	212
3rd "	198	201	47	47	315	363
4th "	133	197	57	49	676	368
5th "	130	83	64	16	869	350
6th "	144	67	59	22	776	358
7th "	174	79	39	25	1026	295
TOTALS.....	884	883	300	204	3970	2052

This Table shows that the present epidemic was much more severe at the outset than that of 1871-2, but that it was more quickly reduced in its proportions, as the mortality in the third month was the same in both years, whilst in the fifth month it

was only one fourth of that in 1872. The number of cases in the fifth month was also little more than one third of that in the second, whilst in 1872 it was much larger. As, however, the disease returned in October, 1872, and caused a mortality of 111 in 1873, we must not feel by any means certain that its worst effects are over; at the same time, the deaths in London during the corresponding period of four weeks have remained so singularly even in this epidemic, since the third mortality period, as to lead us to suppose that although it will probably last as long as usual, viz., about twelve months, more or less, yet that it will not increase in severity.

In my report for 1871 I gave some tables showing the total number of deaths from small pox in all London since 1839, and the mortality in different groups of years. The latter also contained the percentage of the deaths in the first year of each of the four-yearly periods (which is the one in which the disease has generally been epidemic) and showed that 43·9 per cent. occurred in the 8 first, 23·9 in the 8 last years of each period, 20·3 in the second, and only 11·9 in the third. Now according to this table the year for small pox to have assumed an epidemic form was 1875, but the large number of attacks in 1871-2 appear to have reduced the number of those who were susceptible to it in an unusual ratio, so that the disease did not become epidemic until 1876. As, however, the death rate per 10,000 population, since 1872, from small pox has been exceedingly small, we can scarcely expect the epidemic to subside without causing a larger number of deaths than usual, unless vaccination of adults has been better carried out than in previous years. The ordinary death rate per 100,000 inhabitants from small pox, in London, is about 41·0; but it was only 3·4 in 1873, 1·6 in 1874, 2·2 in 1875, 21·1 in 1876, and at the annual rate of 136·2 in the first quarter of 1877; so that if the number of deaths should continue the same in London for the remainder of this year (1877) there would not be a larger number than usual for

these five years. Hackney has suffered since the commencement of the epidemic, at the very high annual rate of 229.5 per 100,000 population, which is, as just shown, very far in excess of that for all London.

As, however, vaccination has of late been very actively carried out in the district, it is to be hoped if the present rate be maintained, that small pox will become much less fatal in future than it has been on an average of the last seven years.

The examination of the children attending the School Board's schools in this district shows that a very large proportion, something like 25 per cent. of the children under 12 years, were not properly protected by a sufficient number of satisfactory vaccination marks against an attack of small pox. I had some correspondence with the Local Government Board on this subject, and was informed that payment cannot be made out of the public funds for the re-vaccination of children under 12 who have been successfully vaccinated. The correspondence did not define what is meant by "successfully vaccinated," but as experience has shown that less than three good marks are not sufficiently protective, I consider that either the fees should not be paid in the first instance, unless three good marks resulted from the vaccination, or else, that during an epidemic, all those who have not that number of good marks should be re-vaccinated at the public expense, if the parents cannot afford to pay for the operation, even if they are under 12 years of age. It is somewhat difficult to draw the precise line of "successful vaccination," but undoubtedly a single white mark or even more, without any depressions, cannot be considered protective. It should not be forgotten that vaccination is not so simple a matter as it seems to be, for due care must be used in selecting and storing the lymph, whether it be on points or in tubes; and some febrile excitement should result, for unless the disease, *vaccinia*, which the vaccination should cause, be induced, the proper protective power of the lymph will, most probably, not be afforded.

The large number of children under 5 years, viz., 64, or as nearly as possible one third of the whole, also points to neglect of or to inefficient vaccination; but it is only fair to state, that the proportion at that age is about the same as in the years 1868-72 for all England. In Hackney there were 64 deaths under 5 out of a total of 195, which were registered up to March 31st; 37 between 5 and 15; 53 between 15 and 35; and 41 above 35. There were also 96 males and 99 females, the largest proportion of male deaths having occurred below 15, viz., 55 to 46, and the largest of females above that age, viz., 53 to 41 under 15 years of age.

The best direct evidence with which I am acquainted of the efficacy of proper vaccination in protecting persons against small pox, is furnished by an extract from Dr. Jenner's evidence before the House of Commons in 1802; by the immunity of the nurses and others at the small pox hospitals; and the great difference in the death rates of vaccinated and unvaccinated persons. Dr. Jenner, in his evidence, stated that "during the investigation of casual cow pox, I was struck with the idea that it might be practicable to propagate the disease by inoculation, after the manner of small pox, first from the cow, and finally from one human being to another. I anxiously waited some time for an opportunity of putting this theory to the test. At length the period arrived. The first experiment was made upon a lad of the name of Phipps, in the spring of the year, 1796, in whose arm a little vaccine virus was inserted, taken from the hand of a young woman who had been accidentally infected by a cow. Notwithstanding the resemblance which the pustule thus excited in the boy's arm bore to a variolous inoculation, yet, as the indisposition attending it was barely perceptible, I could scarcely persuade myself the patient was secure from small pox. *However, on his being inoculated (with small pox) seven months afterwards, it was proved that he was secure.** This case inspired me with

* This boy was inoculated again with small pox matter nearly five years afterwards, and only suffered from a local inflammation around the punctures.

confidence; and as soon as I could again furnish myself with virus from the cow, I made an arrangement for a series of inoculations. *A number of children were inoculated in succession, one from the other, and after several months had elapsed, they were exposed to the infection of small pox, some by inoculation, others by variolous effluvia, and some in both ways; but they all resisted it.*" I have quoted the passage at length in Dr. Jenner's words, as giving the early history of vaccination, but need scarcely say that it is illegal now to put the efficacy of vaccination to a similar proof to that just described. The passage also shows to its fullest extent the protective power of vaccination when properly performed.

As regards the immunity of nurses and others employed in the small pox hospitals, I would point out that Dr. Marson, late Surgeon of the Highgate hospital for nearly 40 years says that "I have never had a nurse or servant the whole time who has taken small pox there, and I re-vaccinate them when they come there." In 1871-3 not one of the attendants employed at the small pox hospitals contracted the disease, and in the present epidemic, out of 341 employed, 2 suffered from the disease in a severe form, not having been vaccinated, whilst all the others who had had small pox, or been re-vaccinated, escaped, except three who had slight attacks, although many suffered from langour, loss of appetite. &c.

As regards the difference in the death rates of vaccinated and unvaccinated persons, Dr. Marson stated in his evidence before the House of Commons, 1871, that the arms of 13,670 patients were examined on their admission into the hospital with the following results:—

2,920 were unvaccinated, and 1,043 died=34·89 per cent. deaths.

30 had a second attack of small pox, and 6 died=20 per cent. deaths.

29 after inoculation with small pox, 5 died=17·85 per cent. deaths.

10,398 were vaccinated and 685 died=6·65 per cent. deaths.

263 were reported as vaccinated—no marks, 106 died=
39·39 per cent. deaths.

Also, that of those with one mark, only 13·81 per cent. died; but with two or more marks, only 7·7 per cent. died. In the small pox hospitals of the Metropolitan Asylum Board there were 3,125 persons admitted, of whom 1,898 were vaccinated, and 1,227 unvaccinated. The mortality amongst the vaccinated was 8·6 per cent., and amongst the unvaccinated, 37·8 per cent. During the present epidemic the mortality up to March 24th, 1877, amongst both classes, has been greater, viz., 10·8 per cent. amongst the vaccinated, and 45·8 amongst the unvaccinated, as calculated on Dr. Brewer's plan, which gives a lower percentage than on that ordinarily adopted. I have devoted a rather considerable space to prove the necessity not only for primary vaccination, but for re-vaccination, at any rate, after 15 years of age.

The disinfection of houses and infected articles has been very actively carried out, as in most cases the infected articles were removed to the Board's disinfecting chamber, but in the beginning of the epidemic the cases occurred so rapidly that it was impossible to remove all, so that in slight cases which were taken early to the hospital the articles were disinfected with sulphur in the rooms, and in no case did the disease spread from the rooms, bedding, &c., so disinfected. In all cases where the patients remained at home until cured, the infected articles were removed, and the beds and bedding not worth disinfection were burnt in fourteen instances. The total number of houses disinfected by the Officers of the Board was 570. The disinfecting accounts being made up for the year, I have not had the entries separated for the purposes of this epidemic, so that the return for the year includes disinfection done for scarlet fever and fever.

ARTICLES DISINFECTED FOR YEAR 1876.

Beds.	Mat- trasses	Pali- asses	Bolsters	Pillows	Blankts.	Sheets	Quilts	Other Articles	Total	Rooms fumigated
592	132	118	368	771	657	635	323	1752	5348	729

The following are the expenses incurred in carrying out the disinfection above mentioned, exclusive, however, of the salary of the Inspector, who attends to other things as well. The cost of labour was £91 3s. 0d., and would have been much more if the men engaged had not been put to other work when not employed in disinfecting. The coal and coke cost £15 6s. 8d.; repairs to the disinfecting chamber, £6 10s. 0d.; for new wheels and repairs at different times to the covered truck, £12 16s. 8d.; for disinfectants, £71 11s. 4d., which, however, includes those used for disinfecting drains and gullies; and £5 14s. 6d. for petty expenses, making a total of £111 18s. 6d. Against this outlay we have to place a sum of £23 19s. 0d. paid by persons who were in a position to defray the cost of disinfecting their beds, bedding, and other articles, leaving a nett cost of £87 19s. 6d. to be charged on the rates.

Having thus briefly discussed the statistics of the small pox epidemic, I shall now proceed, as usual, to lay before you various matters connected with the sanitary condition of the district. The first general table is one which shows the estimated population for the ten years, 1867-76, the density of population per acre, the number of marriages, births and deaths, and the number of births to 1000 population.

Table II.—Hackney District, 1867-76.

Estimated Population on July 1st.		Density of Population per acre.	Births	Deaths corrected	Marriages	No. of Births to 1000 Population
1867	107,300	27·3	3858	2135	1021	35·9
1868	111,643	28·4	3976	2129	1123	35·6
1869	116,269	29·6	3913	2520	1109	33·7
1870	120,986	30·8	4029	2356	1102	33·3
1871	125,886	31·9	4184	2820	1181	33·2
1872	129,666	32·9	4401	2506	1278	33·2
1873	133,896	34·0	4431	2594	1276	33·2
1874	139,020	35·3	4755	2799	1271	34·7
1875	145,144	36·9	4970	2948	1415	35·1
1876	152,648	38·8	5469	2825	1425	36·3

Population at Census, 1871	124,951
No. of Inhabited Houses at Census, 1871	19,347
No. of Families or separate Occupiers at Census, 1871	26,045
No. of Persons on an average in each Inhabited House at Census, 1871	6·46

*NOTE.—The deaths are corrected so as to allow for deaths in and population of the Small Pox and Fever Hospitals, in the German Hospital and City of London Workhouse, which are situate in the Hackney District; also for the proportion of deaths in other Metropolitan Hospitals.

It will probably be noticed that I have not calculated, since the middle of the year, 1873, the rate of increase of population in the same proportion as from 1871, or indeed from 1867, as the number of empty houses has greatly decreased since 1873, whilst a much larger number has been erected than in each of the previous years. This increase has been rateably much larger in Stoke Newington than in Hackney, especially in 1876-77. The calculated population is probably below rather than above the true number, as the rating of Hackney increased 23·3 per cent. in five years, and of Stoke Newington 36·1, which is considerably in excess of the calculated rate of increase in the population. The large excess in the births also points to a greater number of inhabitants than that given above; indeed, it is probable that it is underestimated by about 3,000, but the statistics for 1877 will, I hope, enable me to arrive at a more accurate opinion. The density of population is rapidly increasing, being now 38·8 against 27·3 per cent. to an acre in 1867, so that we may fairly expect our death rate to increase in accordance with the statistics

on this subject, which have been calculated by the Registrar General.

The density of population would be largely in excess if the acreage of the Marshes and of the River Lea, which bound our district, were excluded from it, which they should be for this purpose, as there would then be 43.1 persons per acre. As regards the births to which I have just referred, it will be seen that in 1867 there were only 3858 registered in the district against 5469 in 1876; and also by comparing the births and deaths in the two years, we see that the birth rate has increased more rapidly than the death rate, as in 1867 there were 180 births to each 100 deaths, whilst in 1876 there were as many as 193 births to 100 deaths. This is a very satisfactory return, and goes a long way to prove the fallacy of the belief that a high birth rate necessarily induces a high death rate; indeed, our death rate for the year (1876) even including the deaths from small pox, was as low as 18.5, being the smallest recorded since 1856. The death rate for all London was also low in 1876, despite the small pox epidemic, but it was 22.3 against 18.51 for Hackney, which indicates a very satisfactory condition of our public health. It is also especially noteworthy that our normal death rate is 22.04 per 1000 population, so that there were about 540 deaths less than the normal number—that is to say, than the number calculated by the English Life Tables on the ages and sex of our population. The normal death rate was calculated on the Census of 1871, and is correct for the present population, certainly within 0.5 deaths per 1000 population. It will also be observed that the marriages have largely increased since 1867.

Table III.

1876.—BIRTHS IN EACH SUB-DISTRICT.

Quarters.	Stoke Newington	Stamford Hill.	West Hackney.	Hackney.	South Hackney.	TOTALS
First	122	77	323	500	311	1333
Second ..	144	50	326	502	319	1341
Third	142	47	288	512	363	1352
Fourth ..	153	49	297	584	360	1443
Totals	561	223	1234	2098	1353	5469
Per cent. . .	10·3	4·1	22·5	38·4	24·7	100
„ in 1871	7·6	4·9	23·4	38·2	25·9	100

From this table we learn that out of the 5469 births 561 were registered in Stoke Newington, 223 in Stamford Hill, 1234 in West Hackney, 2098 in Hackney, and 1353 in South Hackney; so that there were 10·3 per cent. of the whole number in Stoke Newington, 4·1 per cent. in Stamford Hill, 22·5 per cent. in West Hackney, 38·4 in Hackney, and 24·7 per cent. in South Hackney. On comparing these percentages with those for 1871 we find that the proportion has decreased in Stamford Hill, and West Hackney and South Hackney, but has slightly increased in Hackney, and especially in Stoke Newington. I do not believe that this alteration has been caused by any material change in the constitution of the population, but in the increase in the population of the Hackney sub-registration district, which includes the Clapton Park Estate, and more especially in that of Stoke Newington.

Table IV.
1876.—DEATHS IN EACH SUB-DISTRICT.

Quarters.	Stoke Newington	Stamford Hill.	West Hackney.	Hackney.	South Hackney.	TOTALS
First	65	40	162	298	163	728
Second ..	67	28	117	289	138	639
Third	58	39	151	307	174	729
Fourth ..	62	26	119	372	150	729
Totals	252	133	549	1266	625	2825
„ 1872	191	121	568	1038	569	2487

This table shows that 252 deaths out of the 2825 were registered in Stoke Newington, 133 in Stamford Hill, 549 in West Hackney, 1266 in Hackney, and 625 in South Hackney, being a smaller number in West Hackney than in 1872, but a larger number in all the other sub-districts, especially in Stoke Newington and Hackney, as might have been expected from the birth rates.

I have taken 1872 instead of 1871 as a basis of comparison in consequence of the excessive mortality from small pox in the latter year. I have also not made any calculations of the death rates in the sub-districts, in consequence of the deaths in the German Hospital, the Small Pox and Fever Hospitals, the East London Union, and the Hackney Union being all registered in the Hackney sub-district. If these deaths were eliminated the population must be eliminated also, and the deaths in the Workhouse distributed *pro rata* to population in the other sub-districts. As the population has increased more in one district than another, this would introduce many elements of error, so that I prefer leaving it out at any rate until after the next Census.

Table V.

DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR, 1876,
THE DEATHS OF NON-RESIDENTS IN THE FEVER AND SMALL
POX HOSPITALS BEING EXCLUDED.

Cause of Death. Classes.	AGE AT DEATH.													Totals	Percentages.
	0	1	2	5	15	25	35	45	55	65	75	85 and upward.			
	1	2	5	15	25	35	45	55	65	75	85	95 and upward.			
Zymotic.....	203	86	88	66	20	28	15	19	10	10	9	4	558	19.8	
Constitutional	62	41	28	19	70	108	85	60	48	83	10	1	565	20.0	
Local	252	84	60	41	52	45	92	120	181	182	106	26	1241	43.9	
Developmental	231	..	..	..	5	12	13	1	..	12	76	28	378	13.4
Violent Deaths.....	23	8	7	9	7	6	5	9	5	1	5	1	81	2.9	
Not Specified	2	...	..	..	..	—	..	..	..	..	..	..	2	
Totals	773	214	188	185	154	199	210	209	244	288	206	60	2825	100	
Percentages of Deaths..	27.4	7.6	6.5	4.8	5.4	7.0	7.5	7.4	8.6	8.4	7.3	2.1	100	—	

This is an important table, as it shows not only the ages at death, but the proportion of deaths from different groups of disease. Thus there were 558 deaths from zymotic diseases, being 19.8 per cent. of the whole, which is a very low percentage, considering that there were 92 deaths from small pox against 2 the year before. There were 565 deaths from constitutional diseases, or 20.0 per cent. of the whole. This group includes gout, dropsy, cancer, mortification, scrofula, tabes-mesenterica, consumption, and water on the brain; so that it affords a fair indication of the healthiness of a locality, and, to a certain extent, of the social condition of the people, as the mortality from these diseases is high amongst the ill-fed and badly lodged. The largest proportion of deaths occurred from local diseases—that is to say, from inflammation of the brain, apoplexy, paralysis, convulsions, and other affections of the brain and spinal cord. Also from head disease, inflammatory diseases of

the lungs, affections of the liver, stomach, bowels, joints, and diseases of women. There were, as might have been expected, as many as 1241 deaths from these causes, or 43·9 per cent. of the whole. The number of deaths in each order differed considerably from those of last year, as in 1875 there were 356 deaths from brain disease, against 379 in 1876; whilst the deaths from heart disease differed very little, having been 187 in one year and 186 in the other. The mortality from affections of the lungs was very much larger in 1875 than in 1876, owing to the great severity of the winter in the former year, as no less than 372 deaths from bronchitis and 100 from inflammation of the substance of the lungs were registered in 1875, against 282 from bronchitis, and 145 from pneumonia in 1876. The total from diseases of the lungs, exclusive of consumption, was 622 in 1875, and only 479 in 1876. The deaths from affections of the stomach and bowels were nearly the same in both years, viz., 118 and 123. The mortality from developmental diseases, which include premature birth and debility, malformations from birth, and deaths from old age, also never varies very much, so that it is not surprising to find 370 in 1875 against 378 in 1876. The percentage from this class was 13·4 of the whole. Violent deaths were also very close, viz., 85 and 81, or 2·9 per cent. of all the deaths in each year.

The ages at death varied considerably from those in former years, as a very large proportion of deaths happened during the first year of life, and less than usual between 1 and 5; so that although there were as many as 27·4 per cent. of deaths under 1 year against 24·5 last year, the percentages of total deaths under 5 were nearly the same, viz., 41·5 in 1876, and 41·3 in 1875, the mean of 1866-75 having been 40·02. This large proportion of deaths of infants to total deaths has been increasing of late, in consequence of the greater number of births, but as there were only 14·6 deaths to each 100 births, the death rate is much below the average for all London, which

was 15.7 per 100 births. The excess in Hackney was caused by the unusual fatality of diarrhoea and whooping cough. The total number of deaths under 5 years was 1170 out of 2825. There were 135 deaths or 4.8 per cent. between 5 and 15 years, 154 or 5.4 per cent. between 15 and 25, 199 or 7.0 per cent. between 25 and 35, 210 or 7.5 per cent. between 35 and 45, 209 or 7.4 per cent. between 45 and 55, 244 or 8.6 per cent. from 55 to 65, 238 or 8.4 per cent. between 65 and 75, 206 or 7.3 per cent. between 75 and 85, and 60 or 2.1 per cent. above 85. There were 21 deaths at 80 years of age and below 81, 17 at 81-2, 22 at 82-83, only 10 between 83 and 84, as many as 26 at 84-85 years, 14 at 85-86, 10 at 86-87, 6 between 87 and 88, 5 above 88, 5 between 89 and 90, as many as 7 between 90 and 91, and no less than 5 between 91 and 92; 1 at 92, 1 at 93, 4 at the very advanced age of 94, and 1 only above 95, viz., at the patriarchal age of 98, making a total of 155 deaths above 80 years of age, or 5.5 per cent. of the total number, and 19 above 90 years of age.

Table VI.

SHOWING THE MORTALITY FROM CERTAIN CLASSES OF DISEASES, THE PERCENTAGES TO POPULATION AND TO TOTAL DEATHS.—1876.

	Total Deaths.	Percentage of Deaths to Total Deaths.	Deaths per 1000 population.	
			1876	1875
1. Zymotic Diseases (Class I, Order 1)	558	19.8	3.80	3.6
2. Tubercular	430	15.2	2.91	3.1
3. Pulmonary, other than Phthisis ..	479	16.9	3.25	4.4
4. Convulsive Diseases of Infants under 1 year	120	4.3	0.81	0.72
5. Wasting Diseases of Infants	212	7.5	1.43	1.3

2. Includes Phthisis, Scrofula, Rickets, Tabes Mesenterica, and deaths registered as being caused by Hydrocephalus in children of more than 1 year.

4. Includes Infantile Hydrocephalus, Meningitis, Convulsions, and Teething.

5. Includes Marasmus, Atrophy and Debility, Want of Breast Milk, and Premature Birth.

The mortality from zymotic diseases was in excess of those last year, as already mentioned; but the proportion to population was not excessive, having been 3·80 per 1000 population against 3·60 in 1875, and 3·30 in 1874. There were 2·91 deaths per 1000 population from tubercular diseases, or 15·2 per cent. of the deaths from all causes; 479 deaths, which are equal to 16·9 of total deaths, or 3·25 per 1000 population, occurred from inflammatory diseases of the lungs, against 4·4 in 1875; and 332 deaths from convulsions and wasting diseases of infants, which are equal to 11·8 per cent. of all the deaths, and 2·24 deaths per 1000 population, which is a little above the mean. The deaths under the heading of zymotic disease include rheumatism, which I do not think they should, but the number is too small to materially affect the result. It will be seen that tubercular affections include phthisis, scrofula, rickets, tabes mesenterica, and deaths caused by water on the head in children above 1 year of age; so that the mortality from these causes per 1000 population afford a fair index of the sanitary and social condition of our population, and therefore a reduction in the rate is satisfactory. The extreme cold in 1875, and mild weather in 1876 account for the great differences in the death rates from pulmonary diseases, other than phthisis, in the two years. This difference is best shown by the proportion of these deaths to those from all causes, as in 1875 they were as high as 21·1, and in 1876 only 16·9 per cent. of the total. Convulsive and wasting diseases of infants, which include marasmus, atrophy and debility, want of breast milk, and premature birth, as well as water on the brain in infants, inflammation of the brain in infants, convulsions and teething, indicate when in excess either a poor population or a bad sanitary condition of the place, and sometimes both. It will be seen that there is an excess in 1876 as compared with 1875, but only to a slight extent, and this probably arose from deaths having occurred from inflammatory diseases of the lungs, which would otherwise have been caused by one of these affections.

Table VII.

1866-1876.—DEATHS FROM THE PRINCIPAL INFECTIOUS DISEASES
AND DIARRHOEA—52 WEEKS IN EACH YEAR

	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875
Mean Temperature for each Year	49°8	48°6	51°6	49°5	48°7	48°7	50°7	49°1	49°4	49°4
Small Pox	31	27	6	6	16	400	111	9	5	2
Measles	26	15	35	64	40	25	59	28	68	61
Scarlet Fever	68	49	49	247	181	85	51	27	97	78
Diphtheria	12	16	14	16	9	8	7	21	10	21
Whooping Cough ..	89	72	44	102	39	76	97	81	52	113
Fever	76	63	54	60	51	34	50	53	45	58
Diarrhoea	162	75	120	97	115	123	115	161	102	116
Totals—Hackney ..	464	317	320	592	451	751	490	380	379	449
Totals for London ..	14,761	11,660	14,638	17,413	16,476	19,455	12,729	11,170	11,230	13,411

	Hackney	Hackney	Hackney	Hackney	Hackney	Hackney	Hackney	Hackney	Hackney	Hackney
	Annual Average No. of Deaths 1866-1876.	Percentage of Deaths to Total Deaths. 1866-1876.	Mean Annual No. of Deaths per 10,000 population 1866-1876.	Deaths in 1876.	Totals.	10,000 Population	Deaths in 1876.	Totals.	10,000 Population	Deaths in 1876.
Small Pox	61.3	2.3	4.9	..	92	6.0	..	92	6.0	..
Measles	42.1	1.6	3.4	..	15	1.0	..	15	1.0	..
Scarlet Fever	93.2	3.6	7.4	..	57	3.9	..	57	3.9	..
Diphtheria	13.4	0.5	1.6	..	23	1.5	..	23	1.5	..
Whooping Cough ..	76.5	2.9	6.0	..	126	8.2	..	126	8.2	..
Fever	54.4	2.1	4.3	..	44	2.9	..	44	2.9	..
Diarrhoea	118.6	4.6	9.4	..	136	9.0	..	136	9.0	..
Hackney	46.95	17.6	37.0	..	493	32.5	..	493	32.5	..
London	14,386	18.9	45.9	..	12,565	36.0	..	12,565	36.0	..

At the present time this table is of somewhat unusual importance, as it shows, amongst other facts, the number of deaths from small pox during the last eleven years, as well as from the other six zymotic diseases. Thus we see that the mortality from small pox varied between 2 and 400 deaths in different years, the latter number having occurred in 1871, and the former in 1875, against 111 in 1872, and 92 in 1876. These figures indicate that the present epidemic is scarcely likely to be as fatal as that of 1871-2. The table also shows that the deaths from measles and fever were far more uniform than those from scarlet fever, whooping cough, and diarrhoea, as the highest mortality in the eleven years, from measles, was 61, and the lowest, 15; from fever the highest was 76 in 1866, and the lowest 34 in 1871, and the next 44, in 1876, the two years when small pox was epidemic. In 1869 there were as many as 247 deaths from scarlet fever, whilst in 1873 there were only 27; in 1876 there were as many as 126 deaths from whooping cough, against 39 only in 1870. This last-named disease was very fatal in 1875, as well as in 1876, so that we have just had two successive years of very unusual mortality from this infectious disease. There is, I believe, far too great apathy, indeed I may say neglect, as regards the treatment and prevention of the spread of whooping cough, for if proper medical means be used, and due care be taken in keeping the affected children in-doors, and, if possible, in one room, during the whole of the inflammatory part of the disease; and also in not exposing them too soon to cold winds out of doors, this disease would comparatively rarely prove fatal. The numbers given in the table are those which were registered, and are uncorrected for increase of population, so that the figures for 1866 would have to be increased by at least 40 per cent. to render them comparable with the mortality for last year.

Table VIII.

PERCENTAGES OF DEATHS TO THE TOTAL DEATHS IN HACKNEY
FROM 1856 TO 1876, ARRANGED IN 12 GROUPS.

	Zymotic diseases	Diseases of uncertain seat	Tubercular diseases	Diseases of the nervous system	Diseases of the circulatory organs	Diseases of the respiratory organs	Diseases of the digestive and urinary organs	Diseases of the skin and joints	Premature birth and atrophy	Childbirth and diseases of women	Old age	Violence	
	1	2	3	4	5	6	7	8	9	10	11	12	
1856-65	20·80	4·84	16·77	12·18	5·04	16·39	6·50	0·60	4·89	0·98	6·96	4·10	Tempera- ture
1866-75	20·42	4·69	16·52	12·09	5·88	16·64	6·15	0·52	6·45	1·16	6·84	3·19	
1871	28·4	4·1	15·6	10·6	5·7	15·7	5·7	0·4	5·7	0·6	5·1	2·4	48·7
1872	22·2	4·8	16·2	12·5	6·0	16·2	6·3	0·5	5·9	1·5	4·8	3·1	50·7
1873	17·1	4·8	15·1	12·8	6·8	19·1	6·4	0·5	7·0	1·1	6·2	3·3	48·9
1874	16·4	4·8	15·3	13·3	6·9	17·9	7·3	0·4	6·4	1·5	6·4	3·4	48·1
1875	17·7	4·0	15·6	12·1	6·5	22·1	6·5	0·9	7·2	1·2	4·5	2·9	49·4
1876	19·8	4·3	15·5	13·4	6·6	16·9	5·9	0·1	8·2	1·4	4·1	2·8	50·1
Means	20·27	4·65	15·55	14·45	6·41	17·98	6·35	0·47	6·73	1·21	5·18	2·98	49·8

Some of the groups contained in this table have been already referred to, so that we shall discuss the figures for 1876, chiefly in their relation to those of former years. In the first place it is very noticeable how little the mortality in each of these groups has varied, with the exception of zymotic diseases, and even these have caused a very even rate, when periods of at least five years, or better still, ten years are taken. Thus we see that in the ten years, 1856-65, the mean zymotic mortality was 20·80, in 1866-75 20·42, and in 1871-76, 20·27 per cent. of

the deaths from all causes, which is decidedly satisfactory, as the mean of the last six years and of 1876 is below the average of both the decimial periods, although the severe epidemic of small pox in 1871-2 is included in these years. The number of deaths from zymotic diseases, as compared with the deaths from all causes, varies however but very little in all England, or in large districts, if extended over a sufficient number of years. Thus in the Supplement to the 35th Annual Report of the Registrar General, the number of deaths are given for the ten years, 1861-70, in every registration district in England, so that it is easy to calculate out the proportion of deaths from certain diseases to those from all causes.

Table IX.

SHOWING NUMBER OF DEATHS AND RATE OF DEATH UNDER 5 YEARS, OUT OF 100,000 CHILDREN BORN ALIVE IN THE HEALTHY DISTRICTS, ALL ENGLAND, AND LIVERPOOL.

	Healthy Districts.	England.	Liverpool
Deaths from all causes	17,541	26,318	46,037
Total Zymotic Diseases	4,976	8,710	17,101
Rate of death, all causes	100	138	229
" " Zymotic Diseases..	100	140	228

Now taking the number of deaths *from all causes*, under 5 years of age, in the healthy districts* at 100, I have calculated the mortality in all England and in Liverpool, and performed the same operation at the same ages for zymotic diseases, and have obtained the following results, which, for the sake of clearness, I have tabulated above, viz., that for each 100 deaths from

*See the Supplement to the 35th Report of the Registrar General, p. xxix, &c.

all causes in children under 5 years old in the healthy districts of England and Wales, there were 138 in all England, and 229 in Liverpool; whilst from zymotic diseases there were 140 in all England and 228 in Liverpool to 100 in the healthy districts. By these you will see that the death rates from all causes and from zymotic diseases bear, we may almost say, precisely the same ratio in both instances. These figures certainly show, in my opinion, that the comparative mortality from zymotic diseases is not a better proof, under existing legislation and practice, of the sanitary condition of a locality than are the deaths from all causes; and they also, I think, point out the fallacy of terming zymotic diseases "preventable," as though medical officers of health or others have the power of preventing all the deaths from these causes. That small pox is preventable to a very great extent by vaccination I do not doubt, or that the mortality from scarlet fever, measles, whooping cough, diarrhoea, and especially of fever, may be reduced by proper sanitary measures I fully admit; but I certainly object to the word preventable being thus applied, as though every death from these diseases could be prevented.

The figures in Table VIII also show that the mean number of deaths from the following groups of diseases were below the average in 1876, viz., from diseases of uncertain seat, affections of the nervous system, of the respiratory organs, of the digestive and urinary organs, and from old age; whilst those from atrophy, debility, and premature birth, as well as diseases of women and childbirth, were decidedly in excess. There was a rather large number of deaths from puerperal fever in one sub-district of Hackney, and chiefly in the practice of one practitioner, which accounts for the excess of deaths from childbirth. The mortality from tubercular diseases and affections of the circulatory organs differed but little from the average of the six years, but was decidedly below those from 1856-65, and 1866-75.

Table X.

SHOWING THE DECENNIAL MEAN NUMBERS IN THE YEARS 1841-71, OF THE BIRTHS AND DEATHS, OF THE RATIOS OF BIRTHS TO DEATHS, OF BIRTHS TO POPULATION, OF DEATHS UNDER 1 YEAR TO TOTAL BIRTHS, OF DEATHS FROM ALL CAUSES, AND FROM SEVEN MOST FATAL ZYMOTIC DISEASES, TO 1,000 POPULATION. ALSO THE SAME FOR EACH YEAR DURING 1871-76.

Years.	Hackny Number of births.	Hackny Total number of deaths. Correctd	Hackny No. of births to each 100 deaths.	Hackny No. of births to 1000 popula- tion.	Hackny Deaths under 1 year to 100 births.	Hackny Death rate per 1000 popula- tion. Correctd	Hackny Death rate per 1000 inhabi- tants.	Death rate per 1000 population from seven principal epidemic diseases.		
								Engld.	London	Hackny
1841 to 1851 }	1398	946	146	28.3	12.8	19.18	24.77	3.64	4.442	..
1851 to 1861 }	2223	1391	159	31.8	12.7	19.14	23.77	3.864	4.551	3.56
1861 to 1871 }	3440	2182	156	33.8	14.3	20.37	24.43	4.163	4.789	3.78
1871	4184	2814	149	33.2	15.2	22.4	24.6	4.55	5.55	5.96
1872	4401	2487	174	33.2	14.9	19.3	21.5	3.98	3.83	3.77
1873	4431	2594	171	33.2	15.1	19.1	22.5	2.92	3.39	2.85
1874	4775	2799	170	34.7	13.9	20.0	22.6	3.64	3.30	2.76
1875	4970	2948	168	35.1	14.6	20.6	23.7	3.30	3.89	3.17
1876	5469	2825	193	35.8	13.9	18.5	22.3	3.00	3.60	3.25
Means	4705	2744	171	34.2	14.6	20.0	22.9	3.56	3.93	3.63

This table shows, amongst other things, the enormous increase in the population of the district, as the mean annual number of births during the ten years in 1841-50 was only 1398, against 5469 in 1876, and 4705 for the six years, 1871-6. The deaths have also increased in about an equal ratio, as the average of the first ten years was only 946, that of the third ten

years was 2182, and of the years 1871-6, as many as 2744, and 2825 in 1876. The proportion of births to deaths has also very greatly increased, especially during the last few years; as in 1841-50 there were on an average only 146 births to 100 deaths; in 1871-6 there were 171, and in 1876 as many as 193, which is a singularly large proportion. The birth rate per 1000 population has also increased, especially during the last two years, when it amounted to 35.1 and 35.8, against 28.3 in 1841-50. The deaths under 1 year to 100 births, which afford a pretty fair criterion as to the sanitary and social condition of the population (other things being equal), have increased from 12.8 and 12.7 in the years 1841-50 and 1851-60, to 14.3 in 1861-70, and 14.6 in 1871-6. Taking this fact in connection with the large increase in the birth rate, and the low death rate at all ages per 1000 population, it is evident that the general social condition of our population, as regards wealth, has decreased, and also that the greater density of our population is acting detrimentally on the health of infants. At the same time the percentage of 13.9 in 1876 compares favourably with that for all London, which was 15.7 in that year, and generally obtains an average of nearly 16.0 deaths under 1 year per 100 births. The death rate from all causes, viz., 18.5 per 1000 population, is singularly low, being lower than any one of the decennial means, or for any year since 1856, which was also singularly healthy. The mean for all London was also unusually low, having been only 22.3, against 24.77, 23.77, and 24.43 in each decennial period since 1841. The mean rate of mortality during 1876 in the West districts of London was 21.0; in the North, 21.4; in the Central, 24.0; in the East also 24.0, and in the South, 22.1; so that the death rate in the West and North districts was much below the average. The table also shows that while the death rate from the seven chief zymotic diseases, per 1000 population, had increased during the three decennial periods of 1841-70, in England and Wales, from 3.64 to 4.16, being an increase of one-seventh, yet, in spite of

the small pox epidemic of 1871-2, the rate has decreased in 1871-76 to 3·56, or to less than in 1841-50. In London, although the increase during the thirty years was not so great, yet the decrease subsequently was greater, as the percentage was only 3·93 for the years 1871-6, against 4·44 in 1841-50. Now as the former period includes the epidemic of small pox in 1871-2, and the commencement of that now raging, it is evident that some cause or causes must have been in operation in London that did not extend to the whole country; and the only reason I can suggest to account for the decrease is the establishment of the hospitals for infectious diseases by the Metropolitan Asylum Board. In Hackney the decrease is not so decided. As regards the deaths from small pox in 1876, it will be seen that although they have in Hackney raised the death rate of the seven chief zymotic diseases from 3·17 to 3·25 per 1000, yet they have not raised it so as to equal the means of 1856-60, and of 1861-70. I fear, however, that we shall scarcely be able to say as much for 1877, as there is but little evidence at present of a decline in the mortality from the epidemic, and there is also a probability that we shall suffer from an epidemic of measles.

I have attended 34 Sanitary Committee meetings in the year, at many of which important matters concerning the general sanitary arrangements of the district were considered, as well as the steps necessary to prevent as far as possible the spread of small pox, the details connected with the removal of house refuse from the district and other allied matters. I also attended 16 meetings of Sub-Committees, appointed by the Sanitary Committee, to inspect the cowsheds and slaughter houses, the disinfecting chamber and several streets and rows of houses specially complained of, making a total of 50 meetings. Also several meetings of other committees as well as the Board meetings, so that I have attended 77 meetings during the year.

There were 93 cowsheds and 79 slaughter houses inspected, many of them more than once, by the View Committee and

myself, and on several other occasions by the Inspector, Mr. Thomas. At the first meeting of the Justices at Prescott Street the applications for licenses to eight cowsheds and two slaughter houses were opposed, and the granting of the licenses was adjourned to their meeting in November, to allow of certain works being done, of which the occupiers had had notice. At the last named meeting the opposition was withdrawn as regards six of the cowkeepers, but was continued as regards two. In these cases the licenses were refused because the proprietors would not provide a water supply from the Company's main, although they had none except from pumps. The opposition to two slaughter houses was also successful, as regards one because the occupier would not provide proper lighting and ventilation, and as regards the other because the Metropolitan Board of Works objected to declare it a newly established slaughter house, which it was, but proposed to transfer the license from an old shed to the new one; but as the old shed was in fair order the magistrates continued that license at our suggestion.

During the year two attempts have been made to establish anew two offensive businesses in the district, both being bladder blowers, one in a shed at the back of the Kingsland Road, and the other at Stonebridge Common. Summonses were taken out against the parties and the magistrate convicted both in small penalties with the understanding, that if they were brought up again they would be heavily fined. They both left the neighbourhood immediately after the convictions without paying the penalties, and without leaving any trace as to the places to which they went. Other important proceedings were taken in the Police Courts for the abatement of nuisances; in one case for a nuisance in Shoreditch causing injury to the health of some inhabitants of this district, in which the magistrate ordered its abatement, being the first order of the kind we have obtained; and the other against the builder of a house for having erected and let it without providing a proper water supply and water

supply apparatus for the use of his tenant. In this case a penalty of 40/- with costs was inflicted. Also for exposing meat unfit for the use of man, when a £10 penalty was ordered to be paid, and many cases of defective water supply apparatus, in which penalties were inflicted, and paid to the Board.

On the 14th of June last I brought up a report pointing out that the Metropolitan Board had just had under their consideration a letter from Mr. Secretary Cross respecting the building of houses on rubbish foundations. That the Board had replied to the effect that there were great difficulties in the way of obtaining a new Building Act, and therefore asked Mr. Cross to assist them in preventing this and other injurious practices. I therefore suggested that this Board should consider the advisability of requesting the Metropolitan Board to introduce a Bill for making certain alterations in the law, without waiting for the introduction of a new Building Bill. The alterations I suggested were—

1. That road scrapings should not be used for making mortar, or fine siftings of house refuse for making plaster.
2. That means should be taken for preventing the ground damp from penetrating through or rising up the walls of newly-built houses, by the use of cement or other suitable material, and the introduction of a damp-proof course above the ground.
3. That the floor joists should not be laid on the ground or in channels cut out of the ground, but that in all cases there should be a clear space of at least one foot between the joists and the ground, and also that sufficient means of ventilation should be adopted for ventilating the space.
4. That the open space in the rear of dwelling houses being often of such an irregular shape, as not to admit of sufficient circulation of the contained air,

that therefore there should not be less than 8 feet from any part of the newly-built house to the nearest wall, and that additions should not be allowed to be built out at any future time, so as to reduce the distance to less than 8 feet.

5. That additional legislation should be framed so as to prevent the use of bad or objectionable materials, and especially of the use of mortar from old houses.
6. That the building on foundations of house refuse or other rubbish should be subject to the limitations proposed in my last report, or altogether prevented. I append the resolutions agreed to by you when this matter was under discussion in 1875, although they were not referred this year to the Sanitary Committee for consideration and report at the same time with the above.

1st Resolution.—That no building be hereafter erected on made ground unless the whole internal area of the premises be covered with a thick layer of good concrete, at least 6 inches thick, to the satisfaction of the Surveyor to the District Board or Vestry.

2nd. That all drain pipes passing under buildings so erected, or outside the walls, if within 4 feet thereof, shall be constructed of glazed drain pipes, embedded in a layer of concrete, at least 6 inches in thickness, to the satisfaction of the Surveyor to the Board or Vestry.

3rd. That no building shall be erected on a foundation of house refuse until after a lapse of two years from the time of deposit; or, in the case of any other newly made ground, until the Surveyor to the Board or Vestry be satisfied that sufficient time has elapsed for consolidation of the ground, and for cessation of decomposition in the deposited matters.

I also desire to say that resolution 2 is framed somewhat in accordance with the "regulations relating to house drains," which have been in force in this district at any rate since 1870, one of which is as follows :—

Every drain carried under a house or building, not having 3 feet of ground from the top thereof to the general level of the ground under the floor, and every drain carried at the back or side of a house or other building, if it be within 5 feet of the wall, and above the foundation thereof, must be bedded in and covered over with 6 inches of concrete.

Resolution No. 2 was not proposed as being necessary for this district, but because it was thought that uniform legislation should be introduced for the whole metropolis.

This report was referred to the Sanitary Committee who reported that it was not necessary to have proposal No. 2 carried out, as the Metropolitan Board had just then instructed their Surveyors to prevent the use of improper materials in the making of mortar and plaster. That as regards the other proposals, they advised the Board to agree with them, and forward a copy to the Metropolitan Board of Works. They advised slight alterations, so as to make the proposals more definite, and that there should be 10 feet instead of 8 in the rear of newly-built houses, and that no erection should hereafter be made on the open space of either new or old houses, if they reduced the space below 10 feet. A copy of this report was forwarded to the Metropolitan Board of Works. In connection with this subject I may mention that several fatal cases of diphtheria have occurred in houses where the rain-water pipes were connected with the drains without being trapped, and when the persons attacked slept in rooms close to open joints of the pipes, so that they were exposed to sewer emanations, which escaped into their bedrooms.

In the early part of the year I was directed to make certain

enquiries respecting the manner in which the dust and other house refuse was removed in other districts, and, as the result, the Sanitary Committee decided to recommend the Board to divide the district into two parts, one to be worked on the old plan of a fixed price per load for a man, horse, cart, and implements to be supplied by the contractor, and the dust to be his property; whilst in the other, the dust collected was to be the property of the Board, and the contractor was to provide only men, horses, and harness, the Board finding carts and implements. The contract price for the district in which the contractor provided all the plant, but retained the dust, was 2/7 per load; in the other it was 2/10 per load, but the Board having agreed to sell the dust collected at 5d. per load, the price was 2/5 with about 4½d. per load added on for the carts and implements. Considering that the facilities for shooting were not quite so good in one district as the other, the prices may be considered as about the same, at any rate there was no saving by adopting the latter plan, and the work has not been carried out any better, indeed not so well, as by the per load system. The total number of loads removed during the year was 17,867, being a reduction of about 1500 loads; but the increased price per load above that paid in 1875-6, has raised the total to £2924 14s. 11d., even after allowing for the amount due, but not as yet paid, for part of the loads delivered. The sum paid to the men employed by the Board was £476 3s. 0d., against £433 16s. 0d., the difference having been caused by an increase in their wages during the current year. The total number of requests, made at the Town Hall, to remove dust during the year amounted to 2918, against 3383 in 1876.

There was one case of cholera that was fatal in about 16 hours after the choleraic symptoms developed themselves, but the man had suffered from neglected diarrhoea for three days. The structural sanitary arrangements about the house were good, but the closet was very foul and the cistern by no means clean.

There was no connection between the cistern and the water closet, and no other case occurred in the neighbourhood, so that I am quite unable to account for its origin, although the symptoms were identical with those of malignant cholera.

At various times during the year I received complaints respecting certain peculiarly offensive smells which occasionally pervaded the atmosphere of the south-western parts of our district, and in the early part of October my suspicions that they came from the Haggerstone Gas Works were confirmed, by a most frightful smell in the day time, when I sent two Inspectors at once to the Works, and after receiving their report, communicated with Dr. Sutton, the Medical Officer of Health for Shoreditch, offering my assistance, if required, for suppressing the nuisance. The Shoreditch authorities took active steps to prevent a recurrence, so that the nuisance has been abated without any legal proceedings having been necessary on the part of this Board. Complaints were also received about the Blood Drying Works in Bow, so that I reported the matter to the Sanitary Committee, who brought up a report recommending that the Metropolitan Board of Works be communicated with, which was agreed to. The number of nuisances abated during the year was 6445, which is nearly 200 more than in 1875-6. Of this number 597 consisted of nuisances arising from defective or choked drains, 149 of yards that were either undrained or in which the means of draining were defective, 411 in which the traps were broken or the cover wanting, and 28 from cesspools which were discovered on making a search, affording a total of 1314 nuisances from defects in the arrangements for drainage. The number from defects in houses was much greater, viz., 3870, of which 2196 were caused by the want of whitewashing, cleansing, and repairing, 537 by broken dust bins, 296 from defective paving in the yards, and as many as 841 from improper water supply apparatus. There were also 651 houses disinfected by the officers of the Board, 30 cases of overcrowding abated, 49 pigsties

removed, 131 accumulations of dung and other offensive matters taken away, and 241 other nuisances abated. This is a very large number considering the great amount of time abstracted from the usual work by attention to the small pox epidemic.

The number of houses inspected in their regular order, details of which can be found in the Table of Streets, &c., was 6103 against 517 houses or other premises respecting which complaints were received. The great sanitary advantages derived in this district from a regular yearly inspection of the poorer houses can be readily appreciated by this comparison as the number of nuisances complained of were not more than one-seventh part of those that were discovered during the systematic inspection. This plan has been carried out regularly since 1866, and has doubtless assisted most materially in keeping the death rate of our district so low in comparison with that of most metropolitan parishes and districts. In addition to these works were the inspections of cowsheds and slaughter houses, numbering 172, not only previously to the licensing time, but also at other periods of the year; of greengrocers, fishmongers and poulterers' yards, and a systematic oversight of the urinals. There were also 167 bakehouses visited and orders issued for the limewhiting and cleansing of those that were found to be dirty. The total number of separate premises inspected was 8127, to most of which several visits were paid.

Besides the visits just enumerated we must add those paid to the 6103 houses inspected without complaint, but in which no nuisances were discovered. The table in the appendix shows that 2987 houses were examined throughout, as well as the yard, water closets and water supply apparatus without any nuisances having been discovered, and also that a very large number of visits were paid to houses to ascertain if the dustmen carried out their duties properly. As regards the 6103 houses inspected it was found that 25,996 rooms were used for living or sleeping in or for both purposes, being rather more than the same proportion

the year before ; that there were 37,697 persons residing in them against 37,882 in 6037 houses the year before and nuisances were found on 3016 premises against 2993 in 1875. These numbers are singularly close, and show the great importance of a regular and systematic inspection of all the houses occupied by the poor. I am glad to say that there were not any of those abominable cases of indecent overcrowding which were occasionally met with in former years. The total number of overcrowding cases was 30 against 31 in 1875. This table also shows the streets in which the majority of the small pox and other cases of infectious diseases occurred, as out of 459 cases of small pox as many as 304 occurred in the 6103 houses and amongst 37,698 inhabitants, against 155 cases in the rest of the district. It is true that we were not informed of all the cases, although we know of all the deaths, and therefore the comparison is not perfect, still this return shows its extreme prevalence amongst the poor.

In addition to these there were 121 lodging-house notices served, 2918 dust complaints attended to, 59 bodies received at the mortuary and afterwards delivered up to the friends of the deceased, 242 houses disinfected for small pox and the infected articles, to the number of 2459, removed to the disinfecting chamber of the Board, and returned after disinfection to their owners. There were also 801 letters sent out, 3697 preliminary, 2863 statutory and other notices made out and served, 79 persons summoned before a magistrate, and 474 copies of summonses and orders made out, the sanitary books properly kept, the dust accounts and other bills checked, so that there was an enormous amount of clerical work done in this department in addition to the out-door work.

I need scarcely say after this resumé and the work done, that all the inspectors have devoted their best energies to their work and have given me perfect satisfaction. I may also state that I have myself inspected a large number of houses, of

accumulations of offensive matter, some premises whereon noxious trades were carried on, and many other places, as well as the cow-sheds and slaughter-houses.

During the year the Bye Laws for the regulation of the business of a Blood boiler, Bone boiler, Manure manufacturer, Soap boiler, Tallow melter, and Tripe boiler, prepared by the Metropolitan Board of Works, have been confirmed by the Secretary of State. Under these bye laws every precaution necessary for reducing the offensive character of the businesses to a minimum must be adopted. All vapours and gases must be conveyed into a furnace fire, so as to burn them before escaping into the open air; proper places have to be erected for the storage of the materials used in the said businesses, except that of a tripe boiler; and air-tight boxes or other receptacles for conveying any offensive matter to and from the places of manufacture. It is also purposed that Bye Laws shall be extended to the following businesses, viz., a manufacturer of Mineral Acids, of Ammonia, or of any of its salts or compounds from gas liquor; of Glue and Size. There is also a probability of Bye Laws being prepared for the following, viz., Animal Charcoal making, Fish curing, Neat's-foot Oil making, Anthracene, Nitro-Benzine making, India-rubber making, Oil boiling, Japanning and Galvanizing Iron. Scarcely any of these Bye Laws will apply to this district, as action has always been taken for years past, under the Nuisances Removal Act, or the Old Building Act, against persons newly establishing an offensive trade in Hackney.

The water supply to the district has been generally good during the year. I have received several complaints respecting it, but on comparison between the water as delivered and that obtained from kitchen taps, it was in all cases found that the cisterns or pipes inside the house were at fault. In one instance, where two cases of typhoid occurred, the water as delivered was almost free from ammonia, but that which was drank contained as much as 0.014 grains per gallon. The

cistern was found to be fairly clean, but the interior of the pipes was covered with a gelatinous deposit. The New River water, as reported by Drs. Frankland and Tidy, was generally clear and bright, but the East London was not quite clear in July and December. They contained between 16·22 and 23·21 grains per gallon of total solids, which is not excessive, or in any way injurious, indeed, on the contrary, especially for children, would be likely to be beneficial as supplying some of the salts necessary for maintaining the bodily structure. I also made some analyses of the East London water, and found the total solids to vary between 18·02 and 19·40 grains per gallon.

The meteorology of the year was somewhat unusual, as the mean temperature was 50°1, which is 1°3 F. above the average of 105 years, as deduced from the observations taken at the Observatory, Greenwich. The mean temperature for January was 37°3; for February, 41°1; for March, 41°1; for April, 47°2; for May, 49°4; for June, 58°5; for July, 65°9; for August, 63°7; for September, 55°8; for October, 52°8; for November, 44°0; and for December, 44°1; so that the mean temperature for February and March were the same, and that for December was absolutely 0°1 higher than that of November. The average temperature for July was 4°3 in excess, and for August, 2°9; the highest temperature in the shade recorded in July having been 94°0, and in August 93°8; the mean of all the highest in July having been 80°0, and in August 76°8. The lowest temperature recorded in January was 17°1; in February, 21°8; in November, 25°5; and in December, 28°3. The rainfall was 24·2 inches, which is nearly an average, but as much as 8·9 inches fell in November and December, being the largest amount of rain in that month that has been recorded since 1821. There were but two weeks in which the mean temperature fell below freezing point, viz., in the second week in January and in February. The temperature in July was in excess for each week as follows, 4°0, 3°1, 8°0, and 1°3 F.; whilst in the

first week in August it was below the average 1°1, after which the temperature increased again, being in excess during the whole of the week ending August 12th, and on two days to the extent of 4°6 and 10°5, after which it fell again. The effect of the high temperature was very marked, as it raised the annual death rate for the fortnight ending August 5th to 29·6, causing 55 deaths from diarrhoea, of which 46 were of children under 1 year. After this time the continued hot weather did not increase the mortality, as all those susceptible to its influence appear to have succumbed at its first onset.

I remain, Gentlemen,

Yours obediently,

JOHN. W. TRIPE, M.D.;

MEDICAL OFFICER OF HEALTH.

April 27th, 1877.

Received and Ordered to be Printed and Circulated.

JOHN KELDAY, CHAIRMAN.

TABLE OF DEATHS

REGISTERED IN THE HACKNEY DISTRICT DURING THE YEAR 1876.

AGES.....	Under 1 year	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	Total.
CLASS 1—ORDER 1.													
Small Pox	11	7	20	17	8	13	8	5	2	..	1	..	92
Measles	4	7	2	2	..	..	..	..	..	..	..	..	15
Scarlatina	1	13	23	15	..	3	1	1	..	..	..	..	57
Diphtheria	2	3	8	10	..	..	..	..	..	..	..	..	23
Croup	3	3	4	5	..	..	..	..	..	..	..	..	15
Whooping Cough.....	59	38	25	4	..	..	..	..	..	..	..	..	126
Typhus Fever .....	..	..	..	1	2	2	1	1	..	..	..	..	7
Typhoid Fever .....	..	..	5	7	7	6	1	4	3	1	..	..	34
Simple Fever .....	..	..	..	1	2	..	..	..	..	..	..	..	3
Erysipelas	9	..	..	..	1	1	1	5	2	4	2	1	26
Influenza .....	..	..	..	..	..	..	..	..	..	2	..	..	2
Dysentery .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	111	13	..	1	..	1	..	..	1	2	5	2	136
Choleraic Diarrhoea ..	3	2	..	1	..	..	..	1	1	..	..	1	9
Remittent Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism .....	..	..	1	2	..	2	3	2	1	1	1	..	13
	203	86	88	66	20	28	15	19	10	10	9	4	558—558
ORDER 2.													
Syphilis	8	..	..	..	..	..	..	..	..	..	..	..	8—8
ORDER 3.													
Privation .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Want of Breast Milk ..	7	..	..	..	..	..	..	..	..	..	..	..	7
Purpura and Scurvy ..	..	..	..	..	..	1	1	..	..	..	..	..	2
Alcohol { Del. Trëmen. Intmprnce.	..	..	..	..	..	1	1	..	1	1	..	..	4
	7	..	..	..	..	2	2	..	1	1	..	..	13—13
ORDER 4.													
Thrush	2	..	..	..	..	..	..	..	..	..	..	..	2—2
CLASS 2—ORDER 1.													
Gout .....	..	..	..	..	..	..	..	..	1	..	..	..	1
Dropsy .....	..	..	..	..	..	1	..	..	..	1	3	..	5
Cancer .....	..	..	..	..	..	4	5	23	23	19	2	..	76
Mortification & Abscess	3	1	2	..	..	4	..	1	3	2	5	1	22
	3	1	2	..	..	9	5	24	27	22	10	1	104—104
ORDER 2.													
Scrofula .....	..	4	1	4	3	..	1	..	..	..	..	..	13
Tabes Mesenterica ..	25	23	11	4	..	..	..	..	..	..	..	..	63
Phthisis	9	8	5	6	67	97	77	36	20	10	..	..	335
Water on the Brain ..	8	5	9	5	..	..	..	..	..	..	..	..	27
	42	40	26	19	70	97	78	36	20	10	..	..	438—438

TABLE OF DEATHS—Continued.

AGES....	Under 1 year	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	Total.
CLASS 3—ORDER 1.													
Inflammation of Brain	18	15	18	9	8	5	6	5	8	12	4	1	109
Apoplexy .....	..	..	..	..	..	4	12	14	15	19	5	..	69
Paralysis .....	..	..	1	..	2	..	3	7	14	9	16	4	56
Insanity .....	..	..	..	..	..	1	1	1	1	..	..	..	4
Epilepsy .....	..	..	1	2	2	3	2	2	..	3	1	..	16
Convulsions	87	17	7	..	..	..	..	..	..	..	..	..	111
Diseases of Brain .....	..	..	..	..	1	..	3	..	..	3	2	..	9
Diseases of Spinal Cord	..	1	..	..	..	..	1	1	..	2	..	..	5
	105	33	27	11	13	13	28	30	38	48	28	5	379—379
ORDER 2.													
Inflammation of Heart	..	..	1	3	..	..	..	1	..	..	..	..	5
Aneurism .....	..	..	..	1	..	1	2	..	2	2	1	..	9
Heart Disease .....	..	..	1	7	13	8	16	17	37	45	20	8	172
	..	..	2	11	13	9	18	18	39	47	21	8	186—186
ORDER 3.													
Laryngism Stridulus..	18	3	..	..	..	..	..	..	..	..	..	..	21
Laryngitis .....	..	..	2	..	..	..	..	..	..	..	1	1	4
Bronchitis	75	26	12	1	3	4	9	19	37	46	42	8	282
Pleurisy .....	..	..	..	..	..	1	3	4	5	2	..	..	15
Pneumonia	43	20	10	3	9	9	14	12	12	9	2	2	145
Asthma .....	..	..	..	..	..	..	..	3	2	2	..	..	7
Lung Disease .....	..	..	..	..	..	..	1	3	1	..	..	..	5
	136	49	24	4	12	14	27	41	57	59	45	11	479—479
ORDER 4.													
Gastritis .....	..	..	1	..	..	1	..	..	1	1	..	..	4
Enteritis	3	2	..	2	..	1	..	1	2	..	1	..	12
Peritonitis	2	..	..	1	4	..	1	1	1	1	1	1	13
Ulcratn. of Intestines	..	..	..	1	1	1	2	3	..	2	..	..	10
Hernia .....	..	..	1	1	..	1	..	1	4	1	2	..	11
Ileus .....	..	..	..	..	..	..	..	..	..	..	1	..	1
Intussusception	1	..	..	1	..	1	..	1	1	..	..	..	5
Stomach Disease .....	..	..	..	..	..	1	..	..	..	1	..	..	2
Hepatitis .....	..	..	1	..	..	..	2	3	5	2	1	..	14
Jaundice	5	..	..	..	..	..	..	..	2	..	1	..	8
Liver Disease .....	..	..	..	..	2	..	6	8	14	8	3	1	42
Spleen Disease .....	..	..	..	..	..	..	..	1	..	..	..	..	1
	11	2	3	6	7	5	12	19	30	16	10	2	123—123
ORDER 5.													
Nephritis .....	..	..	..	2	..	..	1	2	..	1	..	..	6
Nephria .....	..	..	..	..	1	1	2	5	7	5	..	..	21
Diabetes .....	..	..	..	..	..	2	..	1	2	..	..	..	5
Stone .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Cystitis .....	..	..	..	..	..	..	..	..	1	3	1	..	5
Kidney Disease .....	..	..	1	1	1	..	..	1	2	1	..	..	7
	..	..	1	3	2	3	3	9	12	10	1	..	44—44

TABLE OF DEATHS—Continued.

AGES....	Under 1 year	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	Total.
ORDER 6.													
Ovarian Dropsy.....	..	..	..	..	1	..	2	..	2	..	1	..	6
Uterus, Disease of....	..	..	..	..	..	..	..	1	2	..	..	..	3
	..	..	..	..	1	..	2	1	4	..	1	..	9— 9
ORDER 7.													
Joint Disease.....	..	..	2	6	3	..	2	2	1	1	..	..	17— 17
ORDER 8.													
Skin Disease.....	..	..	1	..	1	1	..	..	..	1	..	..	4— 4
CLASS 4—ORDER 1.													
Premature.....	145	..	..	..	..	..	..	..	..	..	..	..	145
Cyanosis.....	5	..	..	..	..	..	..	..	..	..	..	..	5
Spina Bifida.....	3	..	..	..	..	..	..	..	..	..	..	..	3
Other Malformations..	11	..	..	..	..	..	..	..	..	..	..	..	11
Teething.....	7	..	..	..	..	..	..	..	..	..	..	..	7
	171	..	..	..	..	..	..	..	..	..	..	..	171—171
ORDER 2.													
Childbirth.....	..	..	..	..	5	12	13	1	..	..	..	..	31— 31
ORDER 3.													
Old Age.....	..	..	..	..	..	..	..	..	..	12	76	28	116—116
ORDER 4.													
Atrophy & Debility ..	60	..	..	..	..	..	..	..	..	..	..	..	60— 60
CLASS 5—ORDER 1.													
Accidents—Negligence													
Fracture—Contns. ...	..	1	2	1	2	1	1	2	3	1	4	1	19
Gun Shot.....	..	..	..	..	..	..	..	1	..	..	..	..	1
Cut—Stab.....	..	2	..	..	..	1	..	..	..	..	..	..	3
Burns—Scalds.....	..	..	3	2	..	..	..	1	..	..	..	..	6
Poison.....	..	2	..	..	..	..	1	..	..	..	..	..	3
Drowning.....	..	..	..	6	3	3	2	2	1	..	..	..	17
Suffocation.....	20	..	..	..	..	..	..	..	..	..	..	..	20
Otherwise.....	..	..	..	..	..	..	..	..	..	..	..	..	..
	20	3	7	9	5	5	3	6	5	1	4	1	69— 69
ORDER 2.													
Murder & Manslghtr.	1	..	..	..	1	..	..	..	..	..	..	..	2— 2
ORDER 3.													
Suicide.....	..	..	..	..	1	1	2	3	..	..	1	..	8
Not Specified.....	2	..	..	..	..	..	..	..	..	..	..	..	2
	2	..	..	..	1	1	2	3	..	..	1	..	10— 10
Totals.....	773	214	183	135	154	199	210	209	244	238	206	60	2825

Streets and other Places Inspected in 1876.						No. of Houses in which Epidemic Diseases occurred.			
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhus-Fever.	Fever.
Abbott street.....	27	87	43	153	17	..	..	..	..
Abney gardens	29	57	38	430	23	1	..	..	2
Acton street	13	46	20	62	9	..	..	..	..
Ada street	40	158	76	274	18	1	..	..	..
Albert place	6	24	8	38	3	..	..	..	..
Albert grove	9	49	12	50	4	..	..	..	..
Albert street	18	53	29	91	14	3	..	..	..
Albion road	8	32	18	38	4	2	..	..	1
Aldham place	9	42	13	71	..	..	..	..	..
Amherst terrace	10	42	12	67	1	..	..	..	..
Anderson road	26	74	35	84	24	..	..	..	..
Andrews road	13	61	26	98	11	..	..	..	..
Arthur street	33	134	40	167	26	2	..	..	..
Austin's buildings	10	20	10	24	6	..	..	..	..
Back road	14	39	19	82	12	2	..	..	..
Bailey's lane	3	12	3	14	..	..	..	..	..
Ball's buildings	14	54	18	90	12	2	..	..	..
Barn street.....	11	48	17	70	3	1	..	..	..
Bath row	14	34	14	61	9	..	..	..	..
Baxter's court	2	8	2	12	1	..	..	..	..
Bay street	20	86	28	117	16	..	..	..	..
Bentham road	4	18	6	31	1	6	1	..	..
Berger road	53	213	86	334	21	5	..	..	..
Blackstone road.....	43	279	91	409	27	2	..	..	1
Blanchard street	11	77	22	108	6	..	..	..	..
Blanchard road	34	289	75	475	18	..	..	..	..
Bloomfield street	46	230	91	394	21	2	..	..	..
Bohemia place	14	54	18	61	11	1	..	..	..
Boreham street	10	40	17	69	6	..	..	..	..
Bowling green street	32	108	40	162	25	..	..	..	..
Bowling green place.....	6	24	8	41	1	..	..	..	..
Bower road	18	66	20	111	8	1	..	..	..
Brooksby walk	41	167	57	176	19	14	2	..	1
Brook street, Clapton	120	491	281	911	69	4	1	..	2
Brown's place	27	108	34	149	14	..	..	..	..
Bridge street	23	90	26	108	17	4	2	..	..
Brunswick street	49	198	76	301	21	..	3	..	..
Brunswick grove	17	67	19	64	14	..	..	..	..
Caroline place	11	47	14	70	5	1	..	..	..
Caroline street, Clapton ..	49	136	58	234	26	..	..	..	..
Charles street	2	8	3	17	..	..	..	..	..
Chapel court	5	11	5	13	2	..	..	..	..
Chapel road	48	170	56	216	23	1	..	..	1
Chapman road	13	56	18	81	9	1	..	..	..
Carried forward....	1005	4207	1702	6728	577	56	9	..	8

Streets and other Places Inspected in 1878.						No. of Houses in which Epidemic Diseases occurred.			
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Lunates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	1005	4207	1702	6728	577	56	9	..	8
Church road, Homerton ..	41	254	61	296	23	..	5	..	..
Church road, West Hackney	2	8	3	19	1	..	..	..	..
Church street, Stoke Newington	6	24	7	39	..	..	..	..	..
Church terrace	11	48	23	115	9	..	1	..	..
Church yard, Hackney	9	48	15	69	6	..	..	..	2
Clarence road	46	194	62	306	23	1	..	..	..
Castle street	8	48	16	76	4	..	..	..	..
Cold Bath lane	9	27	11	48	8	..	..	..	..
College lane	16	64	20	91	4	4	..	..	..
College street	45	180	54	219	23	4	1	..	..
Conduit street and place ..	43	143	52	186	28	1	1	..	..
Conrad street	15	70	17	91	9	..	..	..	..
Cottage place	13	26	13	39	10	..	..	..	..
Cowdray street	13	78	21	111	6	2	..	..	..
Cross street	8	32	10	51	8	5	2	..	..
Cross street, South Hackney	19	76	25	131	10	2	..	..	..
Crozier terrace	64	256	91	361	33	5	..	..	..
Culford road	2	8	3	17	1	..	1	..	..
Derby road	32	192	63	262	20	..	..	..	1
De Beauvoir road	7	28	9	43	5	..	..	..	..
Devonshire place	5	15	5	26	4	..	..	..	..
Digby road	80	304	106	464	39	1	..	1	1
Downham road	14	64	17	89	6	..	..	..	..
Duncan street	51	201	111	424	36	1	..	..	..
Duncan terrace	6	24	11	44	4	..	..	..	..
Duncan square	36	144	61	291	19	1	..	..	1
Duncan place	4	18	6	31	2	..	..	..	..
Durham grove	10	31	9	42	8	1	..	..	..
East street	2	8	2	15	1	..	..	..	..
Eaton place	54	233	79	297	24	..	..	..	..
Edward's lane	16	64	20	81	3	..	..	..	..
Eleanor road	7	28	11	46	3	..	..	..	..
Elgin street	58	348	81	391	38	8	..	..	..
Elizabeth cottages	20	40	20	67	18	..	..	..	..
Essex street	22	88	31	106	10	..	1	..	1
Exmouth place	22	83	30	181	12	1	..	..	..
Fairey street	13	52	19	69	9	..	..	..	..
Falcon court	10	38	12	49	6	..	..	..	..
Farm place, Homerton	12	48	22	99	10	3	..	..	..
Carried forward	1856	7942	2931	13010	1070	96	21	1	14

Streets and other Places Inspected in 1876.						No. of Houses in which Epidemic Diseases were found.			
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	1856	7942	2931	13010	1070	96	21	1	14
Fenn street	9	37	12	51	4	5	..	..	..
Felstead street	29	145	36	148	10	7	1	..	..
Fisher's place	9	36	9	39	6	..	..	..	..
Florefield road	40	152	50	266	19	..	..	..	..
Ford place	4	28	8	36	2	2	..	..	..
Fountain yard	2	4	2	6	1	..	..	..	..
Frederick place	3	12	3	17	2	..	..	..	..
Fulham road	10	33	10	41	10	..	..	..	..
Gainsboro road	21	120	36	156	14	2	..	..	..
George place	6	18	6	33	2	..	..	..	..
George street, Ada street ..	25	100	49	177	12	..	..	..	..
George street, London fields	6	36	6	41	..	..	2	..	..
Goring street	42	176	91	367	28	..	..	..	..
Green lanes	10	51	12	63	2	..	..	..	1
Grove, Homerton	31	124	40	127	19	8	..	..	..
Grove lane, Hackney	14	54	16	67	8	..	..	..	..
Grove lane, Stamford hill ..	38	154	51	168	13	..	..	..	..
Grove road, Stamford hill	11	38	20	96	6	..	..	..	..
Grove street	16	86	21	89	9	..	..	..	..
Grove passage	6	24	6	31	2	1	..	..	..
Hartwell street	3	12	4	21	2	..	..	..	..
Havelock road	59	240	103	463	36	2	..	..	..
Haywood's buildings	4	16	5	31	1	..	..	..	..
Hedger's grove	45	220	79	318	26	1	1	..	..
Hemsley street and place ..	24	99	24	101	11	..	1	..	..
Hertford road	55	275	81	336	31	3	..	..	2
Heslop place	12	48	14	59	6	..	..	..	..
High hill ferry	154	469	180	629	81	..	..	..	1
Holmbrook street	60	244	87	318	35	12	2	..	..
High street, Homerton	41	168	63	279	17	10	..	..	1
Hill street	6	24	8	34	4	..	..	..	..
Hindle street	33	132	49	181	19	..	1	..	1
Hockley street	23	85	29	126	18	..	..	..	..
Holly street	21	126	39	136	12	..	1	..	..
Homer road	33	148	39	197	18	5	..	..	..
Homerton row	6	24	8	41	2	1	..	..	..
Jane's place	8	16	8	39	6	..	..	..	..
Jerusalem gardens	43	129	47	179	20	2	..	..	1
John street, Homerton	22	78	24	57	10	3	..	..	..
John street, London fields	12	76	18	88	4	..	..	..	..
John street, Shackdewell ..	33	132	55	203	18	..	..	..	1
John street, West Hackney	20	78	25	93	8	..	..	..	..
Carried forward	2905	14009	4504	19868	1624	160	30	1	22

Streets and other Places Inspected in 1876.						No. of Houses in which Epidemic Diseases occurred.			
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	2905	14099	4504	19868	1624	160	30	1	22
Kenton road	3	12	3	21	1	..	..	..	..
Kossuth terrace .....	..	..	..	..	..	..	..	..	..
Lamb lane	15	68	23	91	10	..	..	..	..
Landfield street	41	242	71	301	33	..	..	..	..
Lark row	9	32	12	54	7	..	..	..	..
Laurel street	8	32	10	59	4	..	..	..	..
Lea bridge road	136	445	158	642	53	4	..	..	..
Lime grove	9	48	12	59	6	..	..	..	..
Lordship road	10	42	13	59	5	..	..	..	..
Margaret street	43	165	73	218	21	3	1	..	..
Margaret st., Stamford hill	20	63	48	56	11	..	..	..	..
Marian street	22	88	24	59	3	4	1	..	4
Marlow road	56	280	91	367	31	2	3	..	..
Mason's court	3	6	3	14	2	..	..	..	..
Matthias street	30	71	32	128	13	..	..	..	..
Mayfield street	40	168	61	201	12	..	1	..	..
Mead's place	18	52	21	99	11	..	..	..	1
Meadow street	12	49	12	151	2	..	..	..	..
Mehetable road	6	38	12	50	2	2	..	..	..
Middle street	5	20	8	33	1	..	..	..	..
Middlesex place	7	23	7	36	4	..	..	..	..
Millington street	31	184	51	241	21	..	..	..	..
Morning lane	42	138	49	179	20	10	1	..	3
Morpeth road	6	24	6	51	1	..	..	..	..
Montague terrace	35	136	49	201	27	10	1	2	..
Moscow terrace	6	24	7	51	2	..	..	..	..
Myrtle street	28	114	36	134	14	..	..	..	..
Newington common	10	42	11	56	6	..	..	..	..
New Church road	56	217	71	289	21	..	..	..	..
New street	12	84	15	71	4	..	..	..	..
North street	75	301	96	388	31	1	1	..	..
Nursery row	17	58	20	89	7	..	..	..	..
Orchard's street, Kingsland	12	60	16	81	5	1	..	..	..
Orchard street, Well street	15	62	18	94	10	1	..	..	..
Orchard cottages	13	50	18	110	6	..	..	..	1
Ottaway street	36	26	68	300	10	..	..	..	..
Palace road	70	285	93	372	21	4	..	..	..
Paragon road	6	26	8	47	3	2	1	..	..
Park cottages	3	12	3	17	..	..	..	..	..
Park street, Hackney wick	29	116	37	149	11	..	..	..	..
Carried forward	3900	19912	5968	26486	2076	204	40	3	31

Streets and other Places Inspected in 1876.						No. of Houses in which Epidemic Diseases occurred.			
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	3900	19912	5968	26486	2076	204	40	3	31
Pawnbrokers' alley	6	24	6	41	1	..	..	..	..
Pear tree place	10	22	10	31	2	2	..	..	..
Percy road	36	176	49	199	16	2	..	..	..
Percy terrace	42	168	53	218	19	1	..	..	..
Pickle's buildings	6	12	6	18	2	..	..	..	1
Pleasant place	10	40	13	52	4	..	..	..	..
Plough lane	13	39	15	66	5	1	..	..	..
Prince Edward's road	41	205	61	259	19	2	3	..	..
Prospect place	27	104	41	166	18	..	..	..	..
Pyle place	3	9	3	14	1	..	..	..	..
Queen's court	7	14	7	33	4	..	..	..	..
Railway crescent	33	132	46	196	12	2	1	..	1
Rayner street	6	24	8	43	1	..	..	..	..
Red Lion lane	6	24	6	33	2	..	..	..	..
Retreat, The	6	24	8	41	3	1	..	..	..
Richmond place	12	48	14	66	4	..	..	..	..
Ridley road	4	8	4	20	2	..	..	..	..
Rigby's buildings	3	13	3	16	1	..	..	..	..
Rochester place	6	14	6	30	3	..	..	..	..
Rock place	3	12	4	21	3	..	..	..	..
Roseberry place	30	120	36	139	24	..	..	..	..
Rosina cottages	19	58	20	143	8	..	..	..	..
Rosina street	19	72	31	129	11	5	1	..	1
Saint John's place	25	61	25	211	26	..	..	..	..
Saint Thomas cottages ..	8	24	8	36	1	..	..	..	..
Samuel row	12	48	17	76	12	..	..	..	..
Sanford lane	33	132	40	171	26	..	..	..	..
Saxony cottages	13	37	16	89	8	..	1	..	..
Sedgwick street	47	251	64	309	13	21	..	..	..
Shacklewell lane and green	10	43	12	68	4	1	..	..	1
Shacklewell row	37	139	46	194	28	..	1	..	..
Sheep lane	71	221	106	420	33	5	..	..	..
Shepherd's lane	9	36	13	62	2	..	..	..	..
Shepherd's place	9	18	9	47	3	..	..	..	..
Silk Mill hill and court ..	22	69	24	59	10	..	..	..	..
South row	6	16	6	36	1	..	..	..	..
Spring Vale grove	4	10	4	23	1	..	..	..	..
Stanboro' yard	2	4	2	6	..	..	..	..	..
Stellman street	25	90	33	139	13	..	..	..	..
Stonebridge common	55	182	63	172	30	1	4	..	..
Suther street	10	40	12	51	3	1	1	1	..
Carried forward	4641	21695	7613	29626	2455	249	52	4	35

Streets and other Places Inspected in 1876.						No. of Houses in which Epidemic Diseases occurred.			
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	4641	21695	7613	29626	2455	249	52	4	35
Sussex street	5	20	5	31	2	..	..	..	..
Swiss cottages	10	36	10	50	3	..	..	..	..
Taylor's buildings	1	15	6	44	1	..	..	..	..
Tennyson terrace	7	38	10	51	3	..	..	..	..
Templar road	64	275	90	371	22	12	..	..	..
Temple street	16	80	21	109	9	..	..	..	..
Thomas street	17	72	19	76	7	..	2	..	..
Tottenham road	109	451	133	603	31	1	1	..	..
Tranquil place	9	33	9	42	..	..	..	..	..
Triangle road	31	124	40	1186	21	..	..	..	..
Tryon's court	3	10	3	17	2	..	..	..	..
Tudor grove	21	84	36	129	6	1	..	..	1
Tyssen passage, Dalston ..	23	81	33	133	10	..	..	..	..
Tyssen street, Dalston	21	124	36	156	9	..	..	..	..
Tyssen street, Stoke New- ington	19	56	21	91	6	..	..	..	..
Union street, West Hack- ney	33	114	36	143	8	..	..	..	1
Union street, Stoke New- ington	17	68	20	91	5	..	..	..	..
Union row	8	32	14	57	3	2	..	..	..
Urban place	17	68	30	99	7	..	..	..	..
Victoria grove	18	90	32	129	4	..	..	..	..
Victoria road	66	264	101	429	27	10	2	..	1
Vynar street	67	287	120	499	4	2	..	..	1
Wallis road	13	52	16	74	4	..	..	..	..
Warburton road and square	83	333	112	469	51	8	1	..	1
Warwick villas	35	140	38	201	4	1	..	..	..
Waterloo place	28	84	32	169	14	..	..	..	..
Water lane	36	134	41	179	18	..	..	..	..
Wellington street	64	296	81	344	36	4	..	..	..
Well street	31	136	40	171	11	1	3	..	1
West street, Triangle	9	30	9	46	3	..	..	..	..
West street, Well street ..	13	40	15	71	2	..	..	..	..
Western place	14	58	17	79	4	1	..	..	..
Wetherell road	10	40	12	56	1	..	..	..	..
Wharf road	11	44	15	71	6	1	..	..	..
White Hart court	3	6	3	11	1	..	..	..	..
Whitmore road	38	198	46	199	20	..	..	..	..
Wick road	236	1011	306	1414	111	9	3	..	1
Carried forward	5847	24909	8681	36325	2932	302	64	4	42

Streets and other Places Inspected in 1876.						No. of Houses in which Epidemic Diseases occurred.			
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhus Fever.	Fever.
Brought forward	5847	24909	8681	36325	2932	302	64	4	42
William street	20	146	38	154	4	..	..	..	..
Wilman grove	3	13	5	17	3	..	..	..	..
Winchester place	4	16	6	33	3	..	..	..	..
Windsor road	32	128	46	199	13	..	1	..	..
Winslade road	62	290	81	289	6	2	..	..	..
Wood street	44	132	48	173	8	..	..	..	..
Woodland street	64	270	108	376	29	..	2	..	1
Woolpack place	14	58	14	66	12	..	..	..	1
York buildings	10	20	10	51	3	..	..	..	..
York place .....	..	..	..	..	..	..	..	..	..
Other places	3	14	3	14	3	..	..	..	..
Other cases of Epidemic Diseases .....	..	..	..	..	..	155	41	6	30
TOTAL	6103	25996	9040	37697	3016	459	108	10	74

Privy Cesspools emptied, filled up, and drained into the Sewer	28
Choked Drains cleansed or repaired, or re-laid ...	597
New Traps provided	411
Yards drained	149
Water-closet Pans choked	129

Total number of Nuisances from defective drainage	1314
Yards paved or Paving re-laid	296
Number of Dust Bins provided or repaired ...	537
Houses repaired, whitewashed, &c.... ..	2196
No. of houses in which the ventilation has been improved	
No. of houses to which a better supply of water has been given, or the apparatus improved	841

Total number of Nuisances from defects in houses	3870
Number of houses disinfected	651
„ „ overcrowded	30
Pigs removed from separate premises	49
Stable dung and other refuse removed (excluding dust)	131
Filthy places cleansed	159
Other nuisances removed	241
	1261

Total number of nuisances abated, 1876... 6445

Number of Lodging Houses' Notices served	...	...	121
„ Notices for disinfecting premises	...	...	651
„ Letters sent out	..	...	801
„ Preliminary notices served	...	...	3697
„ Peremptory	...	...	1753
„ Statutory	...	...	1110
„ Persons summoned before a magistrate	...		79
„ Copies of summonses and orders made out	...		474
„ Dust complaints received and attended to	...		2918
„ Bodies deposited and taken to the Mortuary			59
„ Houses from which bedding, &c., was removed to be disinfected at the Board's Apparatus			242
„ Articles disinfected at the Board's Apparatus			2459
„ Fish condemned unfit for human food ...pads			41

PREMISES INSPECTED DURING THE YEAR 1876.

Number of Houses inspected under the Sanitary Act, 1866	6103
„ „ in which epidemic disease has appeared	651
„ Premises inspected from complaints received	517
„ Cowsheds inspected	93
„ Slaughter houses inspected	79
„ Greengrocers' yards inspected	166
„ Fishmongers' and Poulterers' yards inspected	84
„ Bakehouses inspected...	167
„ Houses measured as well as inspected	28
„ Urinals inspected	239
Total number of premises inspected	<u>8127</u>

Board of Works for the Hackney District.

REPORT

ON THE

SANITARY CONDITION

OF THE

HACKNEY DISTRICT,

For the year, 1877,

BY

JOHN W. TRIPE, M.D., L.R.C.P.E., ETC.,

Hon. Sec., of the Meteorological Society, &c.

AUTHOR OF NUMEROUS ESSAYS ON SANITARY STATISTICS,
AND OTHER SUBJECTS.

MEDICAL OFFICER OF HEALTH FOR THE DISTRICT.

LONDON :

A. T. ROBERTS, SON, & CO., STEAM PRINTERS, 5, HACKNEY ROAD.

1878

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SANITARY REPORT FOR THE YEAR 1877.

SANITARY OFFICES,
TOWN HALL, HACKNEY,
10th May, 1878.

TO THE BOARD OF WORKS FOR THE HACKNEY DISTRICT.

Gentlemen,

The continued prevalence of Small Pox, not only in this district but in all London, is one of the most marked events of the year as regards our mortality statistics, for otherwise, the year 1877 would have been characterised by the smallest death-rate recorded in this district since 1845, indeed as it is, the mortality was unusually small, having been below the average of the 10 years 1861-70. If this district had not suffered to a greater extent than all London, there would not have been much cause for surprise, although there would have been for regret at this disease having again appeared in our midst, as its tendency to recur in an epidemic form once in four years in this metropolis is so marked as to have almost induced an expectation of a considerable mortality in 1875, when the number of deaths was very much below the usual minimum. Indeed, the severe epidemic of 1871-72 appears to have so modified the usual course of the disease as to have postponed the outbreak for two years, as is shown by the table of deaths in all London from 1840 to 1877 inclusive. It may be asked,—if the tendency of this disease to assume an epidemic form at regular intervals be so marked, what is the good of isolation, disinfection, and other sanitary measures for preventing its spread? One answer is, that by diminishing the number of cases at a given place is to diminish the intensity of the virus, so that many who would contract the disease when the poison is of a given

intensity, escape when it is very much diluted with fresh air. It is also probable that the large proportionate number of deaths to attacks, and the frequent occurrence of the hemorrhagic form, which is very fatal, is due to the greater intensity of the virus at epidemic periods. These remarks apply not only to Small Pox, but to Measles, Scarlet Fever, and Whooping Cough.

Table I.

MORTALITY IN LONDON FROM SMALL POX 1840-77.

Years.	Deaths.	Years.	Deaths.	Years.	Deaths.	Years.	Deaths.
1840	1235	1852	1166	1863	2012	1875	75
1841	1053	1853	217	1864	537	1876	736
1842	360	1854	676	1865	646	1877	
1843	430			1866	1388		
1844	1804	1855	1024	1867	1332		
1845	909	1856	522	1868	606		
1846	257	1857	154	1869	273		
1847	955	1858	247	1870	958		
1848	1617	1859	1156	1871	7876		
1849	518	1860	877	1872	1781		
1850	498	1861	215	1873	115		
1851	1066	1862	345	1874	56		

There is probably another reason why the epidemic assumed an extensive character in this district, viz.: the large proportion of children who were imperfectly vaccinated, and the large number who were returned as "unaccounted for" in the Vaccination Returns for 1872, 1873 and 1874. In my last report I dwelt at some length on the protection afforded against these epidemics by a second vaccination of every person above 15 years of age, and would strongly impress upon all the necessity for this trifling operation being repeated at that age, or if it should have been omitted, at whatever age the person may be up to 55 or 60 years of age. There is also another point which should receive attention, viz.: the re-vaccination of servants, as a large proportion of the adult cases removed to the Hospital from this district were servants. If heads of families would see that their servants are re-vaccinated as soon as they

enter upon their duties, a great check would be given to the extension of the disease. It is, however, much to be regretted that the Local Government Board has not taken some measures which would lead to a more general re-vaccination of adults. Thus, the present fee payable to the district vaccinators is so utterly inadequate to the trouble entailed by the re-vaccination of adults, that they can scarcely be expected to carry it out in an energetic manner. The comparative immunity of those who have four good vaccination marks shows that vaccination has not lost its protective power; but that the operation was performed at many of the public stations before 1872, and by some private medical practitioners in a comparatively ineffective manner. This is of course all the more reason for a general re-vaccination of all over 15 years of age, and of those between 7 and 15, who are not protected by a sufficient number of good marks. If this were done, I have but little doubt that cases of small pox would be comparatively rare, as the system of arm to arm vaccination is much more certain and effective than the old plan.

CASES AND DEATHS FROM SMALL POX, 1877.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Cases ..	195	83	67	79	91	50	31	4	15	12	25	18	670
Deaths ..	39	25	25	25	23	13	4	0	5	0	9	9	179

In the month of January the disease was slightly on the decline in this district, as there were 197 cases against 209 cases in November and 201 in December, 1876, and 39 deaths against 47 deaths in December, 1876.* This decline gradually continued until only 4 fresh cases were reported to us in August without any death having occurred in that month. As soon as the cold weather set in the number of cases increased, although slowly, until November, when the cases and the deaths became much more numerous. The mortality in Hackney during the present

*See my Annual Report for 1876

epidemic is nothing like that which happened in 1871-72, as there were 511 deaths in those years against 271 in 1876-77. It is true that the epidemic has not yet ceased, but I do not think it probable that anything near the mortality of 1871-72 will be reached before this one has passed away.

The number of cases communicated to the Sanitary department is not to be taken as an absolute indication of the prevalence of the disease in different districts, as our information was chiefly obtained through the Relieving Officers, who kindly sent me notice of the cases removed to Hospitals, and for which I have to express my thanks; by weekly inspection of the books of the District Medical Officers; by applications at this office for the disinfection of rooms, bedding and clothing; and by the copies of Death Returns from the District Registrars. The number of cases in each of the different districts now given must not, therefore, be considered as anything more than an approximate statement of the deaths amongst all classes, and of the cases which recovered amongst servants and the poorer classes, but the table shows a singular exemption of the inhabitants of De Beauvoir Town, Stoke Newington, Kingsland, West Hackney, and Stamford Hill, in fact of the western half of the district. This is the more peculiar as parts of Islington which adjoins our western boundary suffered severely. The inhabitants of the eastern and especially of the poorer parts of our district have again suffered severely, including however those on the Priory Estate, Lower Clapton, and in other better class streets in South Hackney and Hackney proper. Why the inhabitants of the Priory should have suffered so severely I cannot tell, unless it be through the agency of the children attending the Board School, as a number of the children go there, although I should have thought they are of a class above that for which these schools were provided.

**NO. OF CASES FROM SMALL POX REPORTED IN THE
FOLLOWING SUB-DIVISIONS, 1877.**

Localities.	Hackney proper.	South Hackney.	Homerton.	Kingeland.	Dalston.	De Beauvoir Town.	Stoke Newington.	West Hackney.	Clapton.	Hackney Wick.	Stamford Hill.	Totals.
Cases.	95	101	167	21	60	4	20	22	112	61	7	670

The record of the number of cases treated at home and in Hospitals is not quite complete, but our books show that out of a total of 670 cases as many as 322 were removed to Hospitals, almost entirely to those belonging to the District Asylum Board and that 295 were treated at home. The Sanitary department was called on to remove only a few cases, and we succeeded in all but one in inducing those who were without proper lodging and accommodation to go to a Hospital. We also assisted in the removal of several cases to the Highgate Hospital of persons whose friends paid for their admission and treatment. In the one case in which the friends of a patient prevented his removal under a Magistrate's order, we summoned the persons who resisted us, and obtained penalties amounting to £1 0s. 0d. from each person and costs. A table shewing the streets in which most of the cases occurred will be found in the appendix to this report.

The appended summary shews that the disinfection of infected clothing and houses has been actively carried out, as no less than 1001 houses, or rather the infected rooms in that number of houses, have been disinfected by the Officers of the Board with burning sulphur. There were also 6237 articles of clothing, bedding, &c., disinfected, viz. : 545 beds, 179 mattresses, 86 palliasses, 383 bolsters, 925 pillows, 865 blankets, 555 sheets, 395 quilts, and 2304 other articles, including articles of wearing

apparel, carpets and curtains. The results of the disinfection were very satisfactory, as in no instance did a case occur in the same rooms after disinfection, with the exception of a few cases where a patient sickened within 14 days after the disinfected articles were returned, so that it is almost certain they were infected before the return of the articles, as Small Pox has an incubative period of from 12 to 14 days. In some houses let in separate tenements, other cases happened some time (months) afterwards, and in different rooms, from fresh infection. This return includes the disinfections done for Scarlet Fever and a few cases of Typhoid and all the cases of Typhus, for which I have not deemed it necessary to make a separate return.

ARTICLES DISINFECTED FOR YEAR 1877.

Beds.	Mat- trasses.	Palli- asses.	Bolsters	Pillows.	Blankets.	Sheets.	Quilts.	Other articles.	Total.	Rooms furnished
546	179	86	383	925	865	555	395	2304	6237	1001

The following are the expenses incurred in carrying out the disinfection above mentioned, exclusive, however, of the salary of the Inspector, who attends to other things as well. The cost of labour was £127 13s. 6d., and would have been more if the men engaged had not been put to other work when not employed in disinfecting. The coal and coke cost £16 5s. 4d.; repairs to the disinfecting chamber, £17 10s. 0d.; new wheels and repairs at different times to the covered truck, &c. £5 14s. 6d.; for disinfectants, £85 14s. 0d., which, however, includes those used for disinfecting drains and gullies; and £7 11s. 3d. for petty expenses, making a total of £182 15s. 1d. Against this outlay we have to place a sum of £36 17s. 6d. paid by persons who were in a position to defray the cost of disinfecting their beds, bedding, and other articles, leaving a nett outlay of £295 17s. 7d. to be charged on the rates.

One great use of having a disinfecting chamber is, that we receive notice after the recovery of a patient of the occurrence of infectious diseases in private families, when we should not otherwise be informed of them, for we scarcely ever hear of cases occurring in the private practice of Medical practitioners except by accident, from neighbours, or, as above stated, after recovery. This is much to be regretted, especially in cases of Diphtheria and Typhoid, as they so frequently arise from some imperfection in the drainage, whereby sewer gas is either brought into the house or conveyed into the cisterns.

Having thus briefly discussed the statistics of the Small Pox epidemic, I shall now lay before you, as usual, the various statistics and other matters connected with the sanitary condition of the district. The next table being one which shows the estimated population for the 10 years 1868-77, the density of population per acre; the number of births, deaths, and marriages; as well as of births to each 1000 of the population.

Table II.—Hackney District, 1868-77.

Estimated Population on July 1st.		Density of Population per acre.	Births.	* Deaths corrected.	Marriages.	No. of Births to 1000 Population
1868	111,643	28.4	3976	2129	1123	35.6
1869	116,269	29.6	3913	2520	1109	33.7
1870	120,986	30.8	4029	2356	1102	33.3
1871	125,886	31.9	4184	2820	1181	33.2
1872	129,666	32.9	4401	2506	1278	33.2
1873	133,896	34.0	4431	2594	1276	33.2
1874	139,020	35.3	4755	2799	1271	34.7
1875	145,144	36.9	4970	2948	1415	35.1
1876	152,648	38.8	5469	2825	1425	36.3
1877	160,000	40.6	5555	3092		34.7

Population at Census, 1871	124,951
No. of Inhabited Houses at Census, 1871.....	19,347
No. of Families or separate Occupiers at Census 1871	26,046
No. of Persons on an average in each Inhabited House at Census, 1871	6.46

*NOTE.—The deaths are corrected so as to allow for deaths in and population of the Small Pox and Fever Hospitals, in the German Hospital and City of London Workhouse, which are situate in the Hackney District; also for the proportion of deaths in other Metropolitan Hospitals.

The estimated increase in the number of inhabitants of this district has been placed at a higher number than that between 1871 and 1873, as the rate books show a relatively greater number of assessments, and the applications for the drainage of new houses have also been in excess of the average for past years. The increase in the number of residents in Stoke Newington is still very large, as the fields are rapidly being built on, and the houses occupied almost as fast as built. The density of population per acre in the whole district is also increasing, and is really greater than represented in the table, as out of 3935 acres there are 467 acres of open spaces which cannot be built upon, and 101 acres of water; but it is an undoubted advantage to have open spaces in our midst which cannot be built on in future years. The density of population in some parts of the district is very high, for instance at Hackney Wick, in 1876, there were above 2100 inhabitants residing on 10 acres of ground, which would give 210 persons per acre, and in some parts of the district the number per acre must be still greater. The mortality at Hackney Wick was very high in 1876 and 1877, partly from the number of deaths from Small Pox, but chiefly from other diseases, as in the former year the death rate was 37.3 per 1000 inhabitants, and in the latter year 32.9 per 1000, or excluding Small Pox it was 28.3 in 1876, and 26.9 in 1877. In Hackney district the death rate for 1876, including the deaths from Small Pox, was 18.5, and excluding these deaths 17.8, and for 1877 the death-rate from all causes was 19.4, and excluding small pox deaths was 18.2 per 1000 inhabitants. I do not attribute this large mortality to one cause, but believe it arose from several, such as the great density of population, the comparative poverty of the people and want of comforts, as well as to a great extent from the bad foundations and bad construction of a large number of the houses, the low level of the ground, and the habits of many of the inhabitants by which drains get choked, and the houses are kept in a dirty state. I trust, however, when all the

streets are dedicated to the parish, and properly paved and drained, that the death-rate will be lessened by a reduction in the number of deaths of children from inflammatory diseases of the lungs, and other diseases which result from taking cold through wet feet. The regular scavengering of the streets should also improve the sanitary condition of this locality.

Table III.

1877.—BIRTHS IN EACH SUB-DISTRICT.

Quarters.	Stoke Newington	Stamford Hill.	West Hackney.	Hackney.	South Hackney.	TOTALS.
First	150	71	316	535	328	1400
Second	168	60	327	512	338	1405
Third	156	59	315	497	337	1364
Fourth	149	53	309	503	372	1386
Totals	623	243	1267	2047	1375	5555
Per cent. 1877	11·2	4·2	22·8	36·9	24·8	100
„ 1871	7·6	4·9	23·4	38·2	25·9	100

The number of births registered during the year was larger than in any similar period, although the excess as compared with 1876 was not great, viz. 86, so that the proportion of births to population was 34·7 against 36·3 per 1000 in 1876. It is, however, worth notice that the birth-rate for 1876 was the largest known, as it was in excess of any other decennial average by nearly 0·9 per 1000 population. The increase in the number of births in Stoke Newington still continues, as in 1871 there were only 316 births registered; in 1873, 417; in 1875, 519; and in 1877, 623, or nearly double the number for 1871. The per centage of births has also increased, having been in 1871 only 7·6 per cent. of the total registered in the district, whilst it was as high as 11·2 per cent. in 1877. The number of births in Stamford Hill district have increased since 1871, although the per centage has diminished, as there were 204

births in 1871, against 243 this year. The number of births is greater in each of the other districts, as in 1871 there were 971 registered in West Hackney, against 1267 in 1877; 1583 in Hackney, against 2047, and 1074 in South Hackney against 1375; but in spite of this excess the percentages have diminished in all except Stoke Newington. There were 3092 deaths of inhabitants registered during the year, against the 5555 births, giving an increase of population from the excess of births amounting to 2463 persons, or about one-and-a-half per cent. on the total population.

Table IV.
1877.—DEATHS IN EACH SUB-DISTRICT.

Quarters.	Stoke Newington	Stamford Hill.	West Hackney.	Hackney.	South Hackney.	TOTALS.	Per centages.
First	83	31	173	452	165	904	29·3
Second ..	76	28	158	361	162	785	25·4
Third	72	34	125	277	121	629	20·3
Fourth ..	64	34	131	346	199	774	25·0
Totals ..	295	127	587	1436	647	3092	100

The table of deaths shows a much larger mortality in Stoke Newington as might have been expected this year than in 1871; but the proportion of births to deaths remains almost unchanged, there having been 191 births in 1871, and 189 in 1877, against each 100 deaths. The difficulty in calculating the death rates for the sub-districts is so great, not only because the Workhouse, the German Hospital, the City of London Unions, and the Fever and Small Pox Hospitals are in Hackney sub-district, that I have not attempted to carry it out, but also because the rate of increase in the population of the sub-districts is not at all uniform, and I have no means of ascertaining what the additional numbers in each district are, as the registration districts do not correspond with the wards or the collectors' districts. There were 295 deaths registered in Stoke Newington,

127 in Stamford Hill, 587 in West Hackney, 1436 in Hackney, and 647 in South Hackney; against 165 in Stoke Newington, 100 in Stamford Hill, 613 in West Hackney, 1313 in Hackney, and 605 in South Hackney, in 1871. It is somewhat singular that although the births in West Hackney have considerably increased since 1871, yet the deaths have actually diminished from 631 to 587. It is true that the deaths in West Hackney were enormously high in 1871, as only 500 were registered in 1870, and 563 in 1872 against the 631 in 1871.

Table V.

DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR, 1877
THE DEATHS OF NON-RESIDENTS IN THE FEVER AND SMALL
POX HOSPITALS BEING INCLUDED.

Cause of Death. Classes.	AGE AT DEATH.												Totals	Percentages.
	0	1	5	15	25	35	45	55	65	75	85 and upwards.			
	1	5	15	25	35	45	55	65	75	85				
Zymotic	156	206	82	71	43	23	20	12	8	6	1	628	20.3	
Constitutional	87	70	23	68	100	88	60	55	35	9	2	597	19.3	
Local	285	159	42	45	65	92	123	209	204	152	23	1399	45.3	
Developmental	204	12	—	1	4	5	—	—	38	63	38	368	11.9	
Violent Deaths	24	9	9	7	12	8	18	4	8	1	—	100	3.2	
Not Specified	—	—	—	—	—	—	—	—	—	—	—	—	0.0	
Totals.....	756	456	156	192	224	216	221	280	295	234	64	3092	100	
Per cents. of death, 1877	24.4	14.8	5.0	6.2	7.2	7.0	7.1	9.1	9.5	7.6	2.1	100		
" " 1856-65	21.0	16.4	6.1	5.1	6.9	7.2	7.3	8.9	10.9	8.0	2.2	100		
" " 1866-75	24.3	15.7	5.1	5.3	7.1	7.3	7.4	8.0	9.8	7.8	2.2	100		

Table 5 is one of unusual interest this year, as it enables us to contrast the deaths from zymotic diseases, which include Small-Pox, Scarlet Fever, Whooping Cough, Fever, and other infectious diseases with those in 1871, when the Small-Pox was

epidemic amongst us. We find that although there have been 179 deaths of residents from this disease yet the deaths from zymotic diseases, as compared with those from all other causes, are positively fewer than in the 15 years from 1856 to 1871 when the per-centage was 21·2 against 20·3 in 1877, 22·2 in 1872, and 28·4 in 1871. This low rate arose from the unusually small number of deaths from Scarlet Fever and Diarrhoea in 1877. The deaths from constitutional diseases which include consumption and other similar affections, cancer, gout, &c., are rather fewer than usual, whilst deaths from local causes such as inflammatory diseases of the lungs, affections of the heart, liver, kidneys, &c., were higher than usual, as inflammatory diseases of the lungs were especially fatal in the early part of the year. In 1870 there were only 479 deaths from these diseases, and 547 in 1877. There were 70 deaths from cancer, 31 from mortification and abscess, 82 from mesenteric disease, 55 from water on the brain, and 337 from consumption. There were also 100 deaths registered from inflammation of the brain (cephalitis), of which as many as 31 were under 1 year old, and were therefore most probably due to a great extent to constitutional causes or to improper feeding; for there is no doubt that many of the deaths from cephalitis in children under 1 year are not inflammatory at all. Diseases of the heart were unusually fatal, as there were 215 registered this year against 186 in 1876, and 187 in 1875. There were also 139 registered from affections of the abdominal organs against 123 in 1876, whilst under the headings of premature birth and atrophy there was a decided diminution, viz.: only 181 against 205. The mortality from accidents was considerably larger, viz.: 100 against 69, which arose from an excess of deaths by drowning, viz.: 21 (of which the greater part were non-parishioners), 23 from fractures and contusions, 12 from burns and scalds. The percentage was, however, not much higher, viz.: 3·2 against 2·9, in consequence of the small number of these deaths as compared with those from all causes.

The deaths returned as resulting from old age were also very numerous, as 152 were registered against 116 in 1876.

The ages at death varied but little from the average for the 10 years 1866-75, except between 15 and 25, and 55 and 66, when the mortality was greater. The death rate under 1 year was decidedly satisfactory as compared with 1876, when it was as high as 27·4 per cent. of the total deaths. In 1877 the percentages were as follows, under 1 year 24·4 per cent. of all the deaths, at 1-5 years 14·8, which is below the average of 1866-75, and much below that for 1856-65. And at the age period of 5-15 years the same remark applies, so that the percentage of deaths below 15 years of age was 44·2 in 1877, 43·5 in 1856-65, and 45·1 in 1866-75, which is fairly satisfactory. At 15-25 years of age the mortality was 6·2 per cent.; at 25-32, 7·2 per cent.; at 35-45, 7·0 per cent.; at 45-55, 7·1 per cent.; at 55-65, 9·1 per cent.; at 65-75, 9·5 per cent., which is rather below the average of former years; at 75-85, 7·6 per cent., which is also rather low; and above 85 years, 2·1 per cent. The number of deaths at different ages at 80 and above are as follows—18 at 80 years, 18 at 81-82 years, 17 at 82-83 years, 14 at 83-84 years, 9 at 84-85 years, 14 at 85-86 years, 7 at 86-87, 9 at 87-88 years, and 6 at 89-90 years, making a total of 120 deaths of inhabitants above 80 but under 90 years of age. The numbers above 90 at different ages were 9 between 90-91, 4 between 91-92, 3 between 92-93, 2 between 93-94, 1 between 94-95, 2 between 95-96, 1 between 98-99, 1 between 99-100, and 1 at the very advanced age of 100 years and 13 days. This person, a female, was born on the 10th of September, 1777, and died on September 23rd, 1877, so that this is another undoubted case of the extension of life for a period exceeding 100 years. The proportion of deaths at 80 years of age and above, has been slightly diminishing since 1856; as in the ten years 1856-65, they amounted to 2·29; in 1866-75, 2·20; and in 1877, 2·10 per cent. of the total deaths.

Table VI.

SHOWING THE MORTALITY FROM CERTAIN CLASSES OF DISEASES, THE PERCENTAGES TO POPULATION AND TO TOTAL DEATHS—1877.

	Total Deaths.	Percentage of Deaths to Total Deaths.	Deaths per 1000 population.	
			1877	1878
1. Zymotic Diseases (Class 1, Order 1)	607	19·7	3·79	3·80
2. Tubercular	465	15·1	2·90	2·91
3. Pulmonary, other than Phthisis ..	547	17·7	3·42	3·25
4. Convulsive Diseases of Infants under 1 year.....	137	4·4	0·86	0·81
5. Wasting Diseases of Infants.....	182	5·9	1·14	1·43

2. Includes Phthisis, Scrofula, Rickets, Tabes Mesenterica, and deaths registered as being caused by Hydrocephalus in children of more than 1 year.

4. Includes Infantile Hydrocephalus, Meningitis, Convulsions, and Teething.

5. Includes Marasmus, Atrophy and Debility, Want of Breast Milk, and Premature Birth.

The mortality from the zymotic class of disease was nearly as high as in 1876, viz.: 3.79 per 1000 population, against 3.80. This group is rather heterogeneous, as it includes not only the eruptive fevers, but remittent fever, rheumatism, influenza and quinsy. As, however, the mortality from these is small they may be almost dis-regarded. The death-rate from tubercular diseases was nearly the same as usual, having been 2.90 against 2.91 in 1876, but from inflammatory diseases of the lungs was in excess, having been 3.42 against 3.25 per 1000 population. From convulsive and wasting diseases of infants the death-rate was rather smaller, viz.: 2.00 against 2.24 per 1000. The toll levied on the human race by these diseases varies but little in this district from year to year, although as the density of the population increases we might expect a larger death-rate from most of the diseases included in the above list, except perhaps from inflammatory diseases of the lungs.

Table VII.

1867-1877.—DEATHS FROM THE PRINCIPAL INFECTIOUS DISEASES
AND DIARRHŒA—52 WEEKS IN EACH YEAR.

Mean Temperature for each year.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
	48°6	51°6	49°5	48°7	48°7	50°7	49°1	49°4	49°4	50°1
Small-Pox	27	6	6	16	400	111	9	5	2	92
Measles	15	35	64	40	25	59	28	68	61	15
Scarlet Fever	49	49	247	181	85	51	27	97	78	57
Diphtheria	16	14	16	9	8	7	21	10	21	23
Whooping Cough...	72	44	102	39	76	97	81	52	113	126
Fever	63	54	60	51	34	50	53	45	58	44
Diarrhœa	75	120	97	115	123	115	161	102	116	136
Totals—Hackney ..	317	320	592	451	751	490	380	379	449	493
Totals for London...	11,660	14,638	17,413	16,476	19,455	12,729	11,170	11,230	13,411	12,565
				Hackney Annual Average No. of Deaths. 1867-1876.	Hackney Percentage of Deaths to Total Deaths. 1867-1876.	Hackney Mean Annual No. of Deaths per 10,000 population 1867-1876.	Deaths in 1877.			
							Totals.	Per 10,000 Population.		
Small-Pox	67.0	..	..	2.6	..	..	5.3	179	11.2	..
Measles	41.0	..	..	1.6	..	..	3.2	91	5.7	..
Scarlet-Fever	92.0	..	..	3.6	..	..	7.3	58	3.6	..
Diphtheria	14.0	..	..	0.5	..	..	1.1	18	1.1	..
Whooping Cough	80.0	..	..	3.1	..	..	6.3	43	2.7	..
Fever	51.0	..	..	2.0	..	..	4.0	62	3.9	..
Diarrhœa	116.0	..	..	4.5	..	..	9.1	86	5.4	..
Hackney	462.0	..	..	17.9	..	..	36.3	537	33.6	..
London	14,075	..	..	18.4	..	..	42.9	..	..	..

This table shows that there were 179 deaths from small-pox, 91 from measles, 58 from scarlet fever, 18 from diphtheria, 43 from whooping cough, 62 from fever, and 86 from diarrhoea. The death-rate per 10,000 population being 11·2 from small pox, 5·7 from measles, 3·6 from scarlet fever, 1·1 from diphtheria, 2·7 from whooping cough, 3·9 from fever, and 5·4 from diarrhoea, being an excess for small pox and measles, but less than usual from scarlet fever, whooping cough, fever, and diarrhoea. The reduction, as regards scarlet fever and diarrhoea, being nearly one-half. The number of deaths from small-pox was the largest for any of the 10 years, with the exception of 1871, whilst that from diarrhoea, after allowing for increase of population, was less than in any of the other years included in the table. The mean number of deaths from these diseases, in the ten years 1867-76, was 38·3 per 10,000 inhabitants, and in 1877, only 33·6 per 10,000, which shows how little effect is produced in the death-rate from these diseases by the prevalence of one zymotic disease only. It is true that if we had had a hot summer the mortality from diarrhoea would have been greater, and the death-rate from these causes have been about the usual average. The mortality from whooping cough has fortunately declined, after two years of unusual prevalence and it is to be hoped that some years will elapse before such an epidemic occurs again.

Table VIII.

PERCENTAGES OF DEATHS TO THE TOTAL DEATHS IN HACKNEY
FROM 1856 TO 1877, ARRANGED IN 12 GROUPS.

Years.	Zymotic diseases.	Diseases of uncertain seat.	Tubercular diseases.	Diseases of the nervous system.	Diseases of the circulatory organs.	Diseases of the respiratory organs.	Diseases of the digestive and urinary organs.	Diseases of the skin and joints.	Premature birth and atrophy.	Childbirth and diseases of women.	Old age.	Violence.	Mean Temperature for each Year.
1	2	3	4	5	6	7	8	9	10	11	12		
1856-65	20.80	4.84	16.77	12.18	5.04	16.39	6.50	0.60	4.89	0.98	6.96	4.10	° 59.0
1866-75	20.42	4.69	16.52	12.09	5.88	16.64	6.15	0.52	6.45	1.16	6.84	3.19	
1871	28.4	4.1	15.6	10.6	5.7	15.7	5.7	0.4	5.7	0.6	5.1	2.4	51.0
1872	22.2	4.8	16.2	12.5	6.0	16.2	6.8	0.5	5.9	1.5	4.8	3.1	51.0
1873	17.1	4.6	15.1	12.8	6.8	19.1	6.4	0.5	7.0	1.1	6.2	3.8	51.2
1874	16.4	4.8	15.3	13.8	6.9	17.9	7.3	0.4	6.4	1.5	6.4	3.4	48.4
1875	17.7	4.0	15.6	12.1	6.5	22.1	6.5	0.9	7.2	1.2	4.5	2.9	49.7
1876	19.8	4.8	15.5	13.4	6.6	16.9	5.9	0.1	8.2	1.4	4.1	2.8	50.4
1877	20.3	3.7	15.6	12.9	6.9	17.7	6.6	0.5	7.0	1.0	4.6	3.2	
Means	20.27	4.88	15.56	12.51	6.48	17.94	6.88	0.47	6.77	1.19	5.10	3.01	

The percentage of deaths from zymotic diseases to deaths from all causes in 1856-65, was 20.80, and in 1866-75, 20.42 against 20.27 in 1871-77 and 20.3 in 1877; so that although the rate varies in different years, as shown in each of the years 1871 to 1877, yet the average remains nearly the same. As regards the next class, those of uncertain seat, the range in the death-rate is singularly small, and the same may be said as to the tubercular affections which, I am glad to say, are gradually declining in the district. In 1856-65 the mean percentage of deaths from the causes

which include consumption, water on the brain, tubercular diseases of the bowels and scrofula, was 16·77; in 1866-75, 16·52, and during the last two years 15·55 in each 100 deaths. Diseases of the nervous system which include inflammation of the brain, apoplexy, paralysis, insanity, &c., are slightly on the increase, the rate having been 12·18 in 1856-65, 12·09 in 1866-75, and 12·51 in 1871-77. The low average for the ten years 1860-75 was due to a singularly small number of deaths from these causes in several of the years. Diseases of the heart, as shown by the deaths, have considerably increased of late, although perhaps this may be partly due to more careful and accurate diagnosis in late years, and therefore more apparent than real. The same remark applies to inflammatory affections of the lungs and air passages which have increased from 16·39 in the ten years, 1856-65, to 17·94 in the seven years, 1871-77. Deaths from premature birth and atrophy have varied rather considerably, and were a little above the mean of any of the decennial periods. This is probably due to deaths hitherto assigned to "old age," being now certified as having been caused by heart disease, chronic bronchitis, and other ailments whose averages have increased. The deaths from violence are as nearly as possible the same as in 1866-75.

Table IX.

SHOWING THE DECENNIAL MEAN NUMBERS IN THE YEARS 1841-71 OF THE BIRTHS AND DEATHS OF THE RATIOS OF BIRTHS TO DEATHS, OF BIRTHS TO POPULATION, OF DEATHS UNDER 1 YEAR TO TOTAL BIRTHS, OF DEATHS FROM ALL CAUSES, AND FROM SEVEN MOST FATAL ZYMOTIC DISEASES, TO 1,000 POPULATION. ALSO THE SAME FOR EACH YEAR DURING 1871-77.*

Years.	Hackny Number of births.	Hackny Total number of deaths. Correctd.	Hackny No. of births to each 100 deaths.	Hackny No. of births to 1000 popula- tion.	Hackny. Deaths under 1 year to 100 births.	Hackny. Death rate per 1000 popula- tion. Correctd.	London. Death rate per 1000 inhab- itants.	Death rate per 1000 population from seven principal epidemic diseases.		
								Englnd.	London	Hackny.
1841 to 1851 }	1398	946	146	28.3	12.8	19.18	24.77	3.64	4.442	..
1851 to 1861 }	2223	1391	159	31.8	12.7	19.14	23.77	3.864	4.551	3.56
1861 to 1871 }	3440	2182	156	33.8	14.3	20.37	24.43	4.163	4.789	3.78
1871	4184	2814	149	33.2	15.2	22.4	24.6	4.55	5.55	5.96
1872	4401	2487	174	33.2	14.9	19.3	21.5	3.98	3.83	3.77
1873	4431	2594	171	33.2	15.1	19.1	22.5	2.92	3.39	2.85
1874	4775	2799	170	34.7	13.9	20.0	22.6	3.64	3.30	2.76
1875	4970	2948	168	35.1	14.6	20.6	23.7	3.30	3.89	3.17
1876	5469	2825	193	35.8	13.9	18.5	22.3	3.00	3.60	3.25
1877	5555	3092	179	34.7	13.6	19.3		2.60		3.36
Means	4826	2794	172	34.3	14.5	19.9		3.43		3.35

The steady increase in the number of births in this district is somewhat remarkable, as the mean number for the ten years, 1841-51 was only 1398, in 1851-61 it was 2,223, in 1861-71 it was 3,440, and for 1871-77 as many as 4,826, the number registered in 1877 being 5,555. The deaths have also increased

*The Annual Summary for London was not published in time for this Report, so that there are some blanks in this Table.

very considerably, but not in so great a ratio as the births, as the mean for 1841-51 was 946, for 1851-61, 1,391, for 1861-71, 2,182, and for the seven years 1871-77, 2794. The proportion of births to each 100 deaths has increased from 146 in 1841-51 to 172 in 1871-77, showing a considerable change in the social condition of the people, viz. : that a larger population of the inhabitants are married now than were during the former period. The rate has of course altered, more from the varying number of deaths than of births, as for instance in 1871 when small pox, scarlatina, whooping cough and diarrhoea were very prevalent, and the death-rate was 22·4 per 1,000. There were only 149 births in 1871 to each 100 deaths, against 193 in 1876, when the death-rate was only 18·5 per 1,000 inhabitants. The proportion of births to inhabitants was only 28·3 per 1,000 in 1841-51, against 34·3 in 1871-77, but the rate has not altered much since 1863 when it was 33·9 per 1,000. The deaths under 1 year to each 100 registered births, which is a good criterion of the social position of the inhabitants, as well as of their sanitary condition, are as might have been expected more numerous now than in 1841-51, when a larger proportion of the children were born to persons in a good position of life. I need not insert any tables on this subject, but from statistics that have been compiled by the Registrar-General we find that 10·3 deaths under 1 year occurred amongst those living in the so called healthy districts, *i. e.*, sparsely populated country districts. From returns collected by Mr. Ansell, Jun., of the National Life Assurance Society, from the clerical, medical, and legal professions, we find that only 8·05 of these deaths occurred, against 16·56 which is the average for all England. It is, therefore, evident that inherited weakness and disease, improper feeding, neglect, bad sanitary conditions, and other causes induce a mortality amongst infants of double what it ought to be, and that our death-rate of 14·5 which is 2·0 below that for all England is still too high. In 1877 the rate was only 13·6 which is lower than in any year

since 1862, when it was only 10·9. The comparatively cold July and September, and the high mean temperature of November and December, account almost entirely for this reduced rate.

The death-rate from all causes in Hackney was only 19·3 per 1,000 which is below the average for the seven years 1871-77, and of the ten years 1861-71, so that considering how rife small-pox has been amongst our inhabitants, we may congratulate ourselves on this return.

The next point to which I desire to draw your attention is the diphtheria outbreak at Clapton, which, although it did not occur until early in 1878, yet as it excited considerable attention and discussion, I think it advisable to insert the report which I presented to the Board on the 22nd of March, 1878.

“The first notification that I had of the outbreak was contained in a letter which I received concerning some cases at Warwick Road, and on making an inspection of these and other houses in which they occurred, it was found that in almost every instance a direct communication existed between their interior and the sewer. Complaints were also made at the same time of the offensive smells from many of the Gullies in Clapton, as low down as Lea Bridge Road. I, therefore, requested Mr. Lovegrove to have them examined, which was done when some were found to be untrapped. I also had a circular letter sent to everyone of the medical practitioners of Upper Clapton and Stamford Hill, asking for information as to the existence of cases of diphtheria, but did not receive any reply whatever except from Messrs. Toulmin, who informed me that they had cases in their practice, but did not give any names or addresses, so that I am unable to state the number of cases, except as regards those in the 134 houses visited, to which reference will be made. There have not been, so far as I know, any fresh cases or deaths since March 8th, with one exception,

which however is in reality not a fresh case, as it had occurred, although I was unacquainted with it, on the 8th instant."

- "The history of the outbreak is as follows:—On February 16th three cases which terminated fatally occurred at Powell Road, Warwick Road, and Clapton Common. Powell Road is more than a mile away, Warwick Road half-a-mile, and the Clapton Common case about a quarter-of-a-mile from the accumulation at Craven Park; the only feature common to the three being the state of the drainage arrangements which allowed sewer gas to enter all the houses. On the 21st, another case that terminated fatally occurred at Lea Bridge Road, within a short distance of Powell Road. On February 28th, another case terminating fatally happened at Clapton Common, and a sixth on March 1st, at Warwick Road, which is the last case of which I have any notice. It is, therefore, very evident that the accumulation of house refuse at Craven's Park could not have been the cause, as was believed, of the outbreak, and we must, therefore, look elsewhere for it. I, therefore, directed one of the Sanitary Inspectors to call at every house which I had not visited, between the last house at Upper Clapton and Warwick Road, when it was found including the houses in the last-named road, and one other house in Downs Park Road, where a case occurred, that out of 134 houses examined as many as 120 had good drainage arrangements, whilst in 13 they were so imperfect as to have a direct communication with the cisterns or wash basins in the house, and in another house there was a water closet opening directly into a passage in the basement which smelt very badly, and was found to be imperfectly trapped. In the 120 houses with good arrangements only 1 case occurred, whilst in the 14 as many as 12 cases happened. A close examination of the facts connected with the 14 houses, in which defective arrangements were found, revealed this additional information, viz.: that 4 drained into a different system of sewers. No case occurred in the last-mentioned houses although

they are nearest to the dust accumulation, whilst in the 10 having defective arrangements which were connected with the ordinary sewers of Clapton, cases of disease occurred in all but one. I may mention here that nearly all the Clapton sewage is, carried into the high level sewer, whilst the four houses above-named drained into a sewer which opens into a system of sewers connected with the low level sewer. I think that it is impossible to have stronger evidence that the infection was conveyed into the houses of the patients by the agency of the sewer gas. Why this gas should have had a peculiar infective power at a particular time, shown by the infection simultaneously of persons living a mile apart, I am unable to determine; but this is only in accordance with what has been observed in outbreaks of diphtheria elsewhere. The occurrence, almost simultaneously of very unpleasant smells from the sewer, which is very unusual at Clapton, and of the diphtheria outbreak, point to some unusual potency for evil in the sewer gas."

After this outbreak the disease declined to about its usual level in the district, as one death occurred in April, at Grange Road, Clapton, and the other in Orchard Terrace, on the 1st of May. There were also some other cases in the Grange Road and at Dalston. The water supply and drainage arrangements were not satisfactory in either of the cases examined, as in one the air pipe from the closet opened into the cistern which was covered, and there was a rush of air through it when the handle of the closet was pulled; as regards the other the rain water pipe was untrapped and connected with the drain, so that sewer gas could enter the sleeping rooms from the hopper of the pipe which is close to it.

During the year a very suspicious outbreak of typhoid occurred in some houses and large institutions in this district, and in Bethnal Green, which was supplied by the same milkman. The facts are briefly these:—In October a young man residing in a milkman's house was attacked with typhoid, and kept his

bed for four weeks. During the time he was worst his mother, who attended upon him, on one or two occasions measured out the milk, and in November, about 14 days afterwards, cases occurred in a large institution at Hackney and in another at Bethnal Green, the places being a mile-and-a-half from one another. Three private families were also attacked about the same time, all being supplied with milk from the said dairy. Five cases occurred almost simultaneously in one establishment and four in the other, although there were, so far as I could learn, no other cases near them. I did not obtain information until too late to trace out the number of other cases, if any. Other cases of typhoid occurred during the year in houses where the drains were defective, and two where old cesspools were found under the floor of the kitchen.

During the year I attended at the Worship Street and Clerkenwell Police Courts to give evidence against 90 persons who had neglected to comply with the notices served on them for the abatement of nuisances. Some of these were of more than ordinary interest, amongst which I may mention the order obtained against the London General Omnibus Company, for neglect of their contractor to promptly remove the stable dung from their premises. The plan adopted was to throw down sawdust which absorbed the urine and was swept up along with the horse droppings. This was frequently allowed to remain unremoved for some days causing a disgusting nuisance, which was much complained of. The magistrate ordered the abatement of the nuisance. Another case was heard against a sausage-maker for having in his possession meat in preparation for the food of man, which was unfit for that purpose. The animal had suffered from lung disease which rendered the flesh dark and wet, so that on my evidence, and that of the inspector, the person was convicted in a penalty of £10. In another case the magistrates made an order for the paving and drainage of a small undedicated street which formed a *cul de sac*, and was held

to be a yard for the use of the inhabitants, as they dried their clothes by suspending them on lines stretched across the street. There were also some summonses for overcrowding, one indecent, where father, mother and six children, two nearly grown up, occupied one room. We have had, I am glad to say, very few of these cases for several years past.

I have attended 32 Ordinary Meetings and 3 Special Meetings of the Sanitary Committee, as well as 12 meetings of the View Committee, for considering various matters connected with the slaughter-houses and cow-sheds of the district, as well as for viewing the premises whereon these businesses were conducted. One view and two other meetings were held specially to consider the propriety of closing all the wells on the premises occupied by cowkeepers; when after submitting an analysis of the water from 9 pumps, all of which were found to be contaminated, the committee advised the applications for licenses to be opposed at the Sessions. At the Sessions held at Edmonton the renewal of two licenses were opposed for this cause, and one other for not doing necessary work, and the applications were adjourned to enable the applicants to remove the pumps and fill up the wells, which were done. At the Prescott Street Sessions the same course was decided upon as regards seven pumps, so that I am not aware of any pumps now existing in this district on premises occupied by a cow-keeper. The Committee also took into consideration the propriety of fixing the number of cubic feet to be allowed for each cow, but after several discussions have not decided what report they should bring up to you on the subject.

I also attended several special sub-committees for making inspections of several courts which were not properly paved and drained; of deposits which had been made near the Grange Road, Clapton, near the Rectory Road and other places; and an inspection of the disinfecting chamber prior to certain alterations and repairs which were required to be done. I also visited places where houses were being built on refuse or on made ground, or with

improper materials, and submitted some specimens to the Building Act Committee of the Metropolitan Board. I also attended before a Committee of the House of Commons to give evidence as to the necessity for an amendment of the Metropolitan Buildings Act.

The contracts for the removal of dust were carried out by the same parties as in 1876, and at the same price, Mr. Iszard removing from his district 9,633 loads, and Mr. Larter 8,990 loads, between the 25th of March, 1877, to the same day in 1878. The cost for cartage at the price per load agreed upon was £2,518 14s. 4d., the wages of the men (not including the drivers) employed in removing it from the houses to the carts was £480 10s., and the inspector's salary, £78, making a total of £3,077 4s. 4d., to which must be added the hire of carts, £117, and the cost of shovels and baskets, £20 14s., making £3,214 18s. 4d., from which there has to be deducted £179 16s. 3d., payable by Mr. Button in accordance with his agreement with the Board making a nett cost of £3,035 2s. 1d. As the amount payable by Mr. Button would not be paid during the current year, the nett cost will not correspond with the sum returned in the accounts, as they show the sums actually paid and received.

The number of nuisances abated are appended at the end of the report, and it will be seen that 1,380 nuisances arising from various defects in drainage, or from choked drains and privy pans were attended to. That there were 3,314 nuisances caused by defects in houses or the adjoining premises, exclusive of drainage, viz.: 323 from defective paving of the yards, 462 from the want of proper dust bins, 2,271 from defective, dirty, or dilapidated houses, and 254 from defective water supply apparatus. There were also 813 houses disinfected, 26 cases of overcrowding abated, 45 pigsties removed, 161 accumulations of manure and other similar refuse removed, 2791 requests to take away dust were attended to, as well as a number of nuisances of

various kinds. The total number of houses inspected, viz. : 6,726, including 6,191 which were examined without complaint, and 525 concerning which complaints were received, is satisfactory, and shows the necessity for periodical examination, as 3141 houses were defective in their sanitary arrangements out of the 6,191 houses examined without previous complaint. In addition to these there were 171 greengrocers', 91 fishmongers' and poulterers' yards examined, as well as 83 cow-sheds and other places, making an aggregate of 8,387 premises examined by the Inspectors, all of whom have carried out their work to my satisfaction. The 6,191 houses examined contained 28,702 living rooms, 9,481 families, and 42,175 inmates, which is a larger number than on former inspections. There were 400 cases of small pox reported from these houses, as well as 70 of scarlet fever, 28 of typhoid fever, 8 of typhus, and 10 of simple fever.

The street lists of 1871 and 1877 giving the number of small pox cases reported at the offices show that the disease was very prevalent in some streets during 1871, which were not visited in 1877, whilst in other streets numerous cases occurred in both epidemics. Thus in Templar Road which is no great distance from the Homerton Hospital, 28 cases occurred in 1871, and 20 in 1877, whilst in Brooksby's Walk which is much nearer the Hospital, 8 cases occurred in 1871 and 11 in 1877. In Bartrip Street, which is more than half-a-mile away, there were 12 cases, and in Felstead Street (a newly built street surrounded, if not built on dust deposits), there were 14 cases; in Sedgwick Street, adjoining Felstead Street, there were 9 cases. In Goring Street, Duncan Street, Elizabeth Cottages, Church Terrace, Percy Road, Palace Road, and other streets in which there were very numerous cases in 1871, there were none or next to none in 1877. Indeed, with a few exceptions, the disease did not spread to anything like so many persons in a street as in 1871, owing to a more speedy removal of the affected persons. If we have suffered in this district, which is doubtful, from the presence of

the hospital, we have certainly derived a benefit from the short distance for which it was necessary to remove the patients. As regards the Priory Estate it will be seen by referring to the supplemental list how severely the disease raged in Clifden Road, and how many of the streets on this estate were infected to a greater or less extent.

The meteorology for the year 1877 was somewhat unusual, as in the months of January and February the temperature was respectively 4.1 and 4.3 degrees above the average of the preceding 36 years, whilst in March it was 1.0 degree below the mean. The rainfall in January was large amounting to nearly 4½ inches, which is 2½ inches above the average. The rainfall in February and March was also in excess; the total for these months being 3.3 inches above the mean. The cold of March was continued into April and May when the mean temperature was below the average by 1.8 degrees and 3.9 respectively, and the excessive rainfall was also continued in April when 3.2 inches fell, or 1½ inches more than usual. The coldest days in these months occurred between May 1st and the 6th, when the deficiency averaged 11½ degrees. On May 4 the thermometer recorded 4 degrees below freezing point, and frosts occurred also on the 3rd, 6th and 7th. In July and September the mean temperature was again in defect to the extent 1.4 degrees in the former, and as much as 4.4 degrees in the latter, being however in excess in August to a small amount, viz. 0.2 degrees. The cold in September was so unusual that there is no record of so low a mean temperature for that month, viz. 52.9, since the year 1803. October was also a cold month, but November was almost as unusually warm as September was cold, the mean temperature being 45°5 or 1.9 degrees above the average of 36 years, which included a large number of warm Novembers. December was also warm, viz. 40°8 for the mean. The rainfall in October and December was in defect, but in November it amounted to 3.4 inches or 1.1 inches above the average. In nearly all the months of this year

the air was drier than usual. The rainfall in July and September was small, viz. 3·5 inches, but in August it was 2·9 inches, so that the deficiency for the summer was one inch for the three months. One result of this deficiency in the mean temperature of July and September was that the ordinary autumnal diarrhoea did not occur to the usual extent.

Received and Ordered to be Printed and Circulated as usual.

JOHN KELDAY, CHAIRMAN.

May 10th, 1878.

TABLE OF DEATHS

REGISTERED IN THE HACKNEY DISTRICT DURING THE YEAR 1877.

AGES	Under 1 year	1 to 2	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 100	Totals
CLASS 1.—ORDER 1.												
Small Pox	26	26	35	40	27	11	8	5	1	..	..	179
Measles	17	68	5	1	..	..	..	..	..	..	..	91
Scarlatina	2	31	23	2	..	..	..	..	..	..	..	58
Diphtheria	1	12	6	..	..	..	..	..	..	..	..	18
Croup	1	13	..	..	1	..	..	..	..	..	..	15
Whooping Cough	14	28	1	..	..	..	..	..	..	..	..	43
Typhus Fever .....	..	..	..	4	..	1	..	..	1	..	..	6
Typhoid Fever .....	..	3	6	19	10	5	3	1	2	1	..	50
Simple Fever .....	..	3	1	..	1	..	..	1	..	..	..	6
Erysipelas	19	3	1	..	1	1	3	1	..	2	..	31
Pyæmia .....	..	..	1	..	..	1	2	1	..	..	..	5
Carbuncle .....	..	..	..	..	..	..	..	..	..	..	..	..
Influenza .....	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	1	..	..	..	..	..	3	..	..	1	..	4
Diarrhoea	62	14	2	1	..	..	1	2	1	2	1	86
Choleraic Diarrhoea ..	..	1	..	..	..	..	..	..	..	..	..	1
Remittent Fever .....	..	3	1	..	..	..	..	..	..	..	..	4
Rheumatism .....	..	..	..	3	2	1	..	2	1	..	..	10
	142	205	82	70	42	20	19	12	8	6	1	607—607
ORDER 2.												
Syphilis	8	1	..	..	..	..	..	..	..	..	..	9—9
ORDER 3.												
Privation .....	..	..	..	..	..	..	..	..	..	..	..	..
Want of breast milk ..	1	..	..	..	..	..	..	..	..	..	..	1
Purpura and Scurvy ..	..	..	..	1	..	..	..	..	..	..	..	1
Alcohol { Del. Tremen. Intmprnce.	..	..	..	..	1	3	1	..	..	..	..	5
	1	..	..	1	1	3	1	..	..	..	..	7—7
ORDER 4.												
Thrush	5	..	..	..	..	..	..	..	..	..	..	5—5
CLASS 2.—ORDER 1.												
Gout .....	..	..	..	..	..	1	..	1	1	..	..	3
Dropsy .....	..	..	..	1	1	..	2	2	5	..	..	11
Cancer .....	..	..	..	1	4	9	11	20	20	4	1	70
Mortification & Abscess	18	1	..	..	2	..	..	2	2	5	1	31
	18	1	..	2	7	10	13	25	28	9	2	115—115
ORDER 2.												
Scrofula	2	2	2	2	..	..	..	..	..	..	..	8—8
Tabes Mesenterica....	42	28	6	2	2	2	..	..	..	..	..	82—82
Phthisis	8	9	9	61	91	76	46	20	7	..	..	337—337
Water on the brain ..	17	20	6	6	..	..	1	..	..	..	..	55—55
	69	69	23	66	93	78	47	30	7	..	..	482—482

TABLE OF DEATHS—Continued.

AGES	Under 1 year.	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 100	Totals
CLASS 3.—ORDER 1.												
Inflammation of Brain	31	22	9	4	5	3	4	11	6	5	..	100
Apoplexy .....	..	..	..	2	6	3	12	16	24	13	1	77
Paralysis .....	..	..	..	..	3	3	8	13	15	8	1	51
Insanity .....	..	..	..	..	1	..	..	1	..	1	..	3
Epilepsy .....	..	1	..	3	1	2	1	..	3	2	..	13
Convulsions	69	23	1	..	..	..	..	..	..	..	..	103
Disease of Brain	3	..	1	..	2	8	4	9	8	8	4	47
Spinal Cord	1	..	..	..	..	..	1	2	..	..	..	4
	114	46	11	9	18	19	30	52	56	37	6	398—398
ORDER 2.												
Inflammation of Heart	..	..	..	2	..	1	..	2	..	..	..	4
Aneurism .....	..	..	..	..	..	..	3	..	1	..	..	5
Heart Disease .....	..	..	5	11	16	22	23	45	41	38	5	206
	..	..	5	13	16	23	26	47	42	38	5	215..215
ORDER 3.												
Laryngism Stridulus ..	15	12	..	..	..	..	..	..	..	..	..	27
Laryngitis	1	2	1	..	1	1	..	..	..	..	..	6
Bronchitis	67	42	7	1	4	6	9	40	61	59	9	305
Pleurisy .....	..	1	..	1	2	1	2	1	3	1	..	12
Pneumonia	52	50	8	5	7	10	18	15	4	6	2	178
Asthma .....	..	..	..	..	..	1	1	3	4	..	..	9
Lung Disease	1	..	..	2	1	4	2	1	..	..	..	11
	136	107	16	9	15	23	32	60	72	66	11	547—547
CLASS 4.—ORDER 4.												
Gastritis	1	..	2	..	..	..	..	1	1	..	..	5
Enteritis	11	1	..	2	1	..	..	1	..	..	..	16
Peritonitis	1	1	4	2	..	1	1	..	1	..	..	11
Ulcratn. of Intestines	1	..	..	2	1	1	1	..	..	..	..	6
Hernia .....	..	..	..	..	..	1	1	2	4	1	..	9
Ileus .....	..	..	..	..	..	..	..	1	..	..	..	1
Intussusception	2	..	1	..	1	1	1	2	..	..	..	8
Stomach Disease	1	..	..	..	..	..	1	3	2	1	..	8
Hepatitis .....	..	..	..	..	..	1	1	3	4	..	..	9
Jaundice	8	..	..	..	1	..	..	2	2	..	..	13
Liver Disease .....	..	..	..	..	5	13	11	13	6	2	..	50
Spleen Disease .....	..	1	..	1	..	1	..	..	..	..	..	3
	25	3	7	7	9	19	17	27	21	4	..	139—139
ORDER 5.												
Nephritis	3	1	..	2	..	1	..	1	..	..	..	8
Nephria .....	..	..	..	2	1	3	4	8	..	1	..	19
Diabetes .....	..	..	..	..	1	2	..	3	1	1	..	8
Stone .....	..	..	..	..	..	..	..	..	..	..	..	..
Cystitis .....	..	..	..	..	1	..	..	2	4	2	1	10
Kidney Disease	1	..	2	1	1	..	5	2	5	2	..	19
	4	1	2	5	4	6	9	16	10	6	1	64—64

TABLE OF DEATHS—Continued.

AGES	Under 1 year.	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 100	Totals
ORDER 6.												
Ovarian Dropsy .....	..	..	..	..	1	1	2	3	2	..	..	9
Uterus, Disease of .....	..	..	..	..	2	1	4	4	..	..	..	11
	..	..	..	..	3	2	6	7	2	..	..	20—20
ORDER 7.												
Joint Disease .....	..	2	1	2	..	..	3	..	1	1	..	10—10
ORDER 8.												
Ulcer and Abscess .....	..	..	..	..	..	..	..	..	..	..	..	..
Skin Disease	6	..	..	..	..	..	..	..	..	..	..	6—6
CLASS 4.—ORDER 1.												
Premature	129	..	..	..	..	..	..	..	..	..	..	129—129
Cyanosis	5	1	..	..	..	..	..	..	..	..	..	6—6
Spina Bifida	7	..	..	..	..	..	..	..	..	..	..	7—7
Other Malformations..	1	..	..	..	..	..	..	..	..	..	..	1—1
Teething	10	11	..	..	..	..	..	..	..	..	..	21—21
	152	12	..	..	..	..	..	..	..	..	..	164—164
ORDER 2.												
Childbirth .....	..	..	..	1	4	5	..	..	..	..	..	10—10
ORDER 3.												
Old Age .....	..	..	..	..	..	..	..	..	38	66	38	142—142
ORDER 4.												
Atrophy & Debility ..	52	..	..	..	..	..	..	..	..	..	..	52—52
CLASS 5.—ORDER 1.												
ACCIDENT—NEGLIGENCE	..	..	..	..	..	..	..	..	..	..	..	..
Fracture—Contusions	..	2	3	..	1	4	6	3	4	..	..	23
Gun Shot .....	..	..	..	1	..	..	..	..	..	..	..	1
Cut—Stab .....	..	..	..	..	..	..	..	..	..	..	..	..
Burns—Scalds	2	5	1	1	1	..	..	..	1	1	..	12
Poison .....	..	..	..	..	1	..	3	..	..	..	..	4
Drowning .....	..	..	5	3	6	1	3	..	3	..	..	21
Suffocation	17	1	..	..	..	..	1	1	..	..	..	20
Otherwise	5	1	..	..	1	1	1	..	..	..	..	9
	24	9	9	5	10	6	14	4	8	1	..	90—90
ORDER 2.												
Murder and Manslghtr.	..	..	..	..	..	..	..	..	..	..	..	..
ORDER 3.												
Suicide .....	..	..	..	2	2	2	4	..	..	..	..	10—10
Not Specified .....	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	756	456	156	192	224	216	221	280	293	234	64	3092
PERCENTAGES ..	24.4	14.8	5.0	6.2	7.2	7.0	7.1	9.1	9.5	7.6	2.1	

STREETS AND OTHER PLACES INSPECTED IN 1877.						No. of Houses in which Epidemic Diseases occurred.				
NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhoid Fever.	Typhus Fever.	Fever.
Abbott street.....	27	87	40	201	19	..	..	I	..	..
Abney gardens	33	65	34	151	24	2	..	..	..	..
Acton street	13	43	23	71	6	1	..	..	..	..
Ada street	40	160	67	264	26	2	..	..	..	..
Albert place	6	24	9	39	4	..	..	..	..	..
Albert grove	9	48	14	51	3	..	..	..	..	..
Albert street	19	71	28	137	9	..	..	..	..	..
Albion road	6	24	8	46	4	..	..	..	..	..
Aldham place	6	36	9	49	1	..	..	..	..	..
Anderson road	24	94	32	146	16	3	..	..	..	I
Andrews road	15	65	27	110	4	..	..	..	..	..
Arthur street	39	157	59	267	30	4	..	..	..	..
Ashton place	8	32	13	48	6	..	..	..	..	..
Austin's buildings....	10	24	13	39	7	1	..	..	..	..
Back road	17	56	33	132	13	1	..	..	..	..
Bailey's lane	2	4	2	6	..	..	..	..	..	..
Ball's buildings	17	65	25	121	6	1	..	..	..	..
Barn street.....	10	49	16	51	4	1	..	..	..	..
Bath row	14	34	14	48	7	..	..	..	..	..
Baxter's court	2	8	2	10	..	..	..	..	..	..
Bay street	20	100	31	134	10	..	..	..	..	..
Bentham road	4	16	5	25	2	8	4	1	..	..
Berger road	52	242	85	365	19	3	1	..	..	..
Blackshaw place	4	12	4	18	2	..	..	..	..	..
Blackstone road.....	43	238	63	251	23	2	..	..	..	..
Blanchard street	11	77	24	114	6	..	..	..	..	..
Blanchard road	34	194	56	291	18	3	..	..	..	..
Bloomfield street	30	161	61	231	12	2	..	..	..	I
Bohemia place	14	54	18	64	6	3	..	..	..	..
Boreham street	6	24	10	38	2	..	..	..	..	I
Bowling green street..	31	101	43	159	18	2	..	..	..	..
Bowling green place..	6	24	9	46	4	..	..	..	..	..
Bower road	23	108	32	136	7	3	..	..	..	..
Brooksby walk	42	209	68	314	16	11	..	..	..	..
Brook street, Clapton..	133	542	209	691	56	3	..	..	I	..
Brown's place	27	108	36	141	18	..	..	..	..	..
Bridge street	23	92	27	129	14	3	..	..	..	I
Brunswick street	53	217	90	363	28	3	1	..	..	..
Brunswick grove	17	68	17	80	10	..	..	..	..	..
Bartrip street	60	240	92	346	30	12	..	..	..	..
Caroline cottages, Clapton	18	40	21	80	16	1	..	..	..	..
Cassland road	30	145	44	227	10	4	3	..	..	..
Carried forward....	898	4188	1513	6219	516	79	9	2	1	4

STREETS AND OTHER PLACES INSPECTED IN 1877.						No. of Houses in which Epidemic Diseases occurred.				
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Brought forward.....	898	4188	1513	6219	516	79	9	2	1	4
Caroline place	11	36	16	58	2
Caroline street, Clapton	32	105	53	162	21	5
Charles street	2	8	3	16	..	..	..	..	..	..
Chapel court	5	11	5	21	4	..	..	..	..	..
Chapel road	48	223	96	337	29	2	..	..	..	..
Chapman road	16	61	38	115	13	..	..	..	..	..
Church road, Homerton	41	248	57	287	20	3	..	..	..	..
Church road, West Hackney	5	20	8	33	5	..	..	..	..	..
Church street, Stoke Newington	2	8	2	9	..	1	..	..	..	..
Church terrace	12	48	15	66	5	..	..	..	..	..
Church yard, Hackney	9	50	15	70	3	..	3	..	..	..
Clarence road	41	174	61	268	19	6	..	1	..	..
Castle street	8	42	13	67	6	3	..	..	..	..
Cold Bath lane	6	18	6	31	4	2	..	..	..	..
College lane	16	64	19	91	6	..	..	..	..	..
College street	46	184	42	173	22	4	..	..	..	..
Conduit street and place	43	143	56	191	17	..	..	..	..	..
Conrad street	15	70	18	73	1	2	..	..	..	..
Cottage place	13	26	15	51	8	..	..	..	..	..
Cowday street	14	84	26	133	7	2	..	..	..	..
Cross street	10	40	19	71	7	..	..	..	..	..
Cross street, South Hackney	19	76	37	141	12	..	1	..	..	..
Crozier terrace	68	256	93	428	33	4	..	..	..	..
Culford road	2	8	2	10	..	..	..	..	..	..
Derby road	33	198	86	287	12	..	..	..	..	..
De Beauvoir road	7	28	12	51	4	1	1	..	..	1
Devonshire place	6	17	7	37	1	..	..	..	..	..
Digby road	84	393	122	602	43	3	..	..	..	..
Downham road	4	24	4	12	1	2	..	1	..	..
Duncan street	68	266	108	543	29	..	..	3	..	..
Duncan terrace	6	24	15	45	3	..	..	..	..	..
Duncan square	45	188	78	348	28	1	..	..	..	..
Durham grove	10	38	11	58	9	1	..	..	..	..
East street	2	8	3	16	2	..	..	..	..	..
Eaton place	50	257	94	446	31	3	..	..	1	..
Carried forward.....	1697	7540	2748	11545	922	124	14	7	2	

STREETS AND OTHER PLACES INSPECTED IN 1877.

No. of Houses in which
Epidemic Diseases
occurred.

NAME OF STREET OR ROAD.	Number of Houses Inspected.	Number of Rooms.	Number of Families.	Number of Inmates.	No. of Houses in which Nuisances were found.	Small Pox.	Scarlatina.	Typhoid Fever.	Typhus Fever.	Fever.
Brought forward	1697	7540	2748	11545	922	124	14	7	2	5
Edward's lane	16	64	21	97	3	..	..	..	..	..
Eleanor road	6	24	10	51	6	2	..	..	..	..
Elgin street	61	366	122	600	41	6	..	..	..	..
Elizabeth cottages....	20	40	20	83	9	..	..	..	..	..
Essex street	22	88	135	36	11	1	..	..	..	..
Exmouth place	22	92	135	39	15	..	2	..	..	..
Fairey street	13	52	21	81	10	..	..	..	..	..
Falcon court	11	40	14	51	4	1	..	..	..	..
Farm place, Homerton	12	48	18	91	9	3	..	..	..	..
Fenn street.....	9	50	16	68	3	..	..	..	..	..
Fisher's place.....	9	38	12	55	5	1	..	..	..	..
Florefield road	40	152	58	290	17	4	..	..	..	..
Ford place	4	24	10	37	3	1	..	..	..	..
Fountain yard	2	4	2	7	..	..	..	..	..	..
Frame court .....	..	..	..	..	..	..	..	..	..	..
Frederick place	7	28	9	49	4	..	..	..	..	..
Fulham place.....	10	40	11	54	8	..	..	..	..	..
Felstead street, Homerton	35	200	59	319	22	14	3	..	..	..
Gainsboro' road.....	21	126	44	237	11	2	1	1	..	..
Gainsboro' square	21	126	39	201	9	1	..	..	..	..
George place	6	24	6	36	1	1	..	..	..	..
George street, Ada street	26	104	54	213	11	..	..	..	..	..
George street, London fields	4	24	5	36	1	1	..	..	..	..
Goring street	42	168	86	328	35	1	..	..	..	..
Green lanes	10	60	14	67	6	..	..	..	..	..
Grove, Homerton	31	121	53	191	15	2	..	..	..	..
Grove lane, Hackney ..	14	56	17	72	6	2	..	..	..	..
Grove lane, Stamford hill	47	181	59	284	23	1	..	..	..	..
Grove rd, Stamford hill	11	44	12	59	8	..	..	..	..	..
Grove street	8	32	12	61	4	2	..	..	1	..
Grove passage	6	24	6	33	2	2	..	..	..	..
Hartwell street	3	12	3	21	1	..	..	..	..	..
Havelock road	59	230	104	394	33	1	3	..	..	..
Haywood's buildings ..	4	9	4	28	1	..	..	..	..	..
Hedger's grove	44	268	72	347	18	9	1	1	..	..
Hemsley street & place	20	109	41	176	19	..	..	..	..	..
Hertford road	67	335	89	431	29	..	..	..	..	..
Heslop place	12	42	16	71	16	..	..	..	..	..
High hill ferry	154	536	199	978	106	2	..	1	..	..
Holmbrook street	66	256	128	559	42	5	..	..	..	..
Carried forward....	2632	11777	4466	18192	1479	189	24	10	3	5

STREETS AND OTHER PLACES INSPECTED IN 1877.						No. of Houses in which Epidemic Diseases occurred.				
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Brought forward....	2632	11777	4466	18192	1479	189	24	10	3	5
High street, Homerton	41	184	68	321	23
Hill street	6	24	7	27	..	..	..	..	..	..
Hindle street	33	132	57	191	22	4	..	..	..	..
Hockley street	23	89	31	140	11	..	..	..	..	..
Holly street	140	688	204	935	38	..	..	..	..	..
Homer road	33	147	51	256	16	..	..	..	..	..
Homerton row	4	20	6	32	2	3	..	..	..	..
Jane's place	8	16	8	38	5	..	..	..	..	..
Jerusalem gardens....	43	129	57	246	21	3	..	1	..	..
John street, Homerton	22	80	24	127	14	3	..	..	..	..
John street, London fields	21	126	31	169	12	..	..	..	..	..
John street Shacklewell	33	132	56	214	16	..	..	..	..	..
John street, West Hackney	20	75	29	140	13	1	..	..	..	..
Kenton road	3	12	4	19	1	1	..	..	..	..
Lamb lane	21	89	41	158	11	1	..	..	..	..
Landfield street.....	17	78	26	110	10	3	..	..	1	..
Lark row	9	32	13	61	6	2	..	..	..	..
Lea bridge road.....	136	446	161	599	69	2	1	..	..	1
Lime grove.....	9	38	14	71	5	..	..	..	..	..
London lane	8	36	8	41	4	5	1	..	..	..
Margaret street	45	176	74	310	22	5	1	..	..	..
Margaret street, Stamford hill	21	80	28	107	12	..	..	..	..	..
Marian street	22	88	26	114	3	5	..	..	..	..
Marlow road	57	286	93	466	30	5	..	..	..	..
Mason's court	3	6	3	15	1	..	..	..	..	..
Matthias street	30	118	48	172	18	2	..	..	..	..
Mayfield street	20	..	..	..	..	1	1	1	..	1
Mead's place	22	75	26	122	17	3	1	1	1	..
Meadow street	12	48	14	58	2	..	..	..	..	..
Mehetable road	11	63	22	86	5	1	..	1	..	..
Middle street.....	5	20	10	43	3	1	..	..	..	..
Middlesex place	8	26	11	52	2	1	..	..	..	..
Millington street	31	184	49	237	16	..	..	..	..	..
Montague road	57	228	65	358	25	1	..	..	..	..
Morning lane	20	92	30	151	16	8	..	..	..	..
Morpeth road.....	4	18	6	31	2	..	..	..	..	..
Montague terrace	15	60	18	105	7	3	..	..	..	..
Moscow terrace.....	6	30	8	44	3	..	..	..	..	..
Carried forward....	3611	15938	5593	24558	1962	259	36	14	5	7

STREETS & OTHER PLACES INSPECTED IN 1877.						No. of Houses in which Epidemic Diseases occurred.				
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Brought forward....	3611	15938	5593	24558	1962	259	36	14	5	7
Myrtle st., Dalston..	28	124	36	181	10
Nesbit street	65	261	96	440	26	4	1	..	..	..
New Church road....	56	144	49	209	18	3	..	..	..	..
New street	12	60	17	75	8	1	1	..	..	..
North street	75	306	96	401	31	1	1	..	..	..
Nursery row	15	59	18	83	6	1	..	..	..	..
Orchard's street, Kingsland.....	12	72	19	75	6	1	..	..	..	..
Orchard st., Well street	8	35	11	48	4	..	1	..	..	..
Orchard cottages ..	13	50	19	169	6	..	..	..	..	..
Ottaway street	36	144	69	317	12	3	..	1	..	1
Osborn road	15	60	17	131	3	..	..	..	..	..
Palace road	71	286	122	598	47	2	4	1	1	..
Paragon road	6	24	8	46	4	1	..	..	..	..
Park cottages.....	3	12	3	18	..	..	..	..	..	..
Park street, Hackney Wick.....	52	213	75	383	11	..	..	..	..	..
Park street, Stoke Newington .....	..	..	..	..	..	..	..	..	..	..
Pawnbroker's alley ..	5	24	5	25	..	..	..	..	..	..
Pear tree place	10	27	11	40	3	1	1	..	..	..
Percy road	43	215	72	292	21	..	..	..	..	..
Percy terrace	42	168	50	259	27	6	2	..	..	..
Pickle's buildings	7	14	8	42	4	1	..	..	..	..
Plough lane	13	38	15	65	6	..	..	..	..	..
Prince Edward's road	41	215	68	338	28	2	1	1	1	..
Prospect place	28	104	49	167	17	..	..	..	..	..
Pyle place	3	9	3	13	1	..	..	..	..	..
Pratt's court	4	12	4	24	1	..	..	..	..	..
Queen's court.....	7	14	8	35	5	..	..	..	..	..
Railway crescent	32	130	42	205	23	1	1	..	..	..
Red Lion lane	6	24	7	36	2	..	..	..	..	..
Retreat, The	6	24	14	50	3	3	..	..	..	..
Richmond place	12	48	16	131	4	..	..	..	..	..
Ridley road	4	8	4	13	2	1	8	1	..	..
Rigby's buildings	3	9	3	14	2	..	..	..	..	..
Rochester place.....	6	12	6	27	2	..	..	..	..	..
Rock place.....	3	12	6	31	2	..	..	..	..	..
Carried forward....	4333	18895	6649	29551	2307	291	57	18	7	8

STREETS AND OTHER PLACES INSPECTED IN 1877.

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Epidemic Diseases
occurred.

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Bought forward ..	5134	22094	7753	34703	2646	348	60	20	7	10
Row	8	32	16	61	7
place	17	57	36	142	10
ria grove	18	90	32	108	6	..	1	..	..	..
ria road	84	445	143	638	41	7	2	1	..	..
r street	67	287	118	483	21	5	..	..	..	..
is road	21	93	30	159	13	..	..	..	..	..
ourton road and										
are	78	276	114	563	44	2	1	4	..	..
wick villas	35	140	42	200	6	..	..	..	..	..
erlow place	25	203	66	195	19	1	..	..	..	..
er lane	11	46	16	50	6	..	..	..	..	..
lington street	64	306	86	339	21	..	..	1	1	..
l street	31	139	39	146	16	8	..	..	..	..
st street, Triangle	9	37	11	56	4	..	..	..	..	..
st street, Well st.	10	36	12	58	5	1	..	..	..	..
stern place	14	56	22	109	8	..	..	..	..	..
therell road	10	32	11	46	4	..	..	..	..	..
arf road	14	56	23	101	6	..	..	..	..	..
ite Hart Court ..	3	6	3	7	1	..	..	..	..	..
ite Post lane	8	38	13	40	5	..	..	..	..	..
itmore road	38	160	51	221	16	..	..	..	..	..
ck road	238	1283	397	1954	103	18	4	1	..	..
lliam street	20	146	26	139	4	1	2	..	..	..
inchester place	4	16	6	31	2	1	..	..	..	..
indor road	32	158	48	257	18	..	..	..	..	..
inslade road	62	336	119	412	40	2	..	1	..	..
ood street	42	169	86	255	28	1	..	..	..	..
oodland street	62	267	111	427	28	4	..	..	..	..
oolpack place	16	64	23	113	6	1	..	..	..	..
ork buildings	10	20	10	51	4	..	..	..	..	..
ork place .....	..	..	..	..	..	..	..	..	..	..
Other places	6	24	8	41	3	..	..	..	..	..
TOTAL	6191	28702	9481	42175	3141	400	70	28	8	10

**SUPPLEMENTAL LIST OF STREETS IN WHICH MORE THAN TWO CASES
OF SMALL POX, &c., OCCURRED IN 1877.**

NAME OF STREET OR ROAD.	Small Pox.	Scarlet Fever.	Typhoid.	Typhus Fever.	Fever.	NAME OF STREET OR ROAD.	Small Pox.	Scarlet Fever.	Typhoid.	Typhus Fever.	Fever.
Brought forwrd.	400	70	28	8	10	Brought forwrd.	495	72	30	8	11
Amherst road ..	10	..	1	..	..	Grove street rd.	3	..	1	..	..
Aspland grove	4	..	..	..	..	Glenarm road ..	4	1	..	..	..
Ballance road ..	9	1	..	..	..	Graham road ..	3	4	..	..	..
Blurton road ..	4	..	..	..	..	Hassett road ..	5	..	..	..	..
Banbury terrace	4	..	..	..	..	Clapton High road	3	..	..	..	..
Barracks, Dalston	3	..	..	..	..	Median road ..	5	1	..	..	..
Churchill road	10	1	..	..	..	Mare street ..	7	1	3	..	1
Clapton square	3	..	..	..	..	Middleton road	4	..	..	..	..
Clifden road ..	17	..	..	..	..	Stoke Newing- ton road	3	..	..	..	..
Christie road ..	3	..	..	..	..	Tower street ..	3	..	..	..	..
College avenue	6	..	..	..	..	Other cases of Small-pox, &c.	135	33	23	2	5
Chatsworth road	4	..	..	..	..		
Dunlace road ..	4	..	..	..	..		
Elderfield road	6	..	..	..	1						
Foulden road ..	4	..	1	..	..				
Fanfield road ..	4	..	..	..	..		
Carried forward	495	72	30	8	11	TOTALS	670	112	57	10	17

*These Streets are not inspected from House to House as those are in the other List.
The number of Cases 135 occurred in Streets not specially mentioned*

Privy Cesspools emptied, filled up, and drained into the Sewer	6
Choked Drains cleansed or repaired, or re-laid ...	743
New Traps provided	389
Yards drained	51
Water-closet Pans choked	241
<hr/>	
Total number of Nuisances from defective drainage	1380
Yards paved or Paving re-laid	323
Number of Dust Bins provided or repaired ...	462
Houses repaired, whitewashed, &c... ..	2271
No. of houses in which the ventilation has been improved	4
No. of houses to which a better supply of water has been given, or the apparatus improved	254
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Total number of Nuisances from defects in houses	3314
Number of houses disinfected	813
„ „ overcrowded	26
Pigs removed from separate premises	45
Stable dung and other refuse removed (excluding dust)... ..	161
Filthy places cleansed	222
Other nuisances removed	296
<hr/>	
	1563
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Total number of nuisances abated, 1877...	6257
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Number of Lodging Houses' Notices served	216
„ Notices for disinfecting premises	813
„ Letters sent out	1157
„ Preliminary notices served	3743
„ Peremptory	1801
„ Statutory	1048

Number of Persons summoned before a magistrate ...	91
„ Copies of summonses and orders made out ...	546
„ Dust complaints received and attended to ...	2791
„ Bodies deposited and taken to the Mortuary	86
„ Houses from which bedding, &c., was removed to be disinfected at the Board's Apparatus	414
„ Articles disinfected at the Boards Apparatus	4021
„ Fish condemned unfit for human food ...pads	28

PREMISES INSPECTED DURING THE YEAR 1876.

Number of Houses inspected under the Sanitary Act, 1866	6191
„ „ in which epidemic disease has appeared	813
„ Premises inspected from complaints received	535
„ Cowsheds inspected	83
„ Slaughter houses inspected	65
„ Greengrocers' yards inspected... ..	171
„ Fishmongers' and Poulterers' yards inspected	91
„ Bakehouses inspected	169
„ Houses measured as well as inspected	26
„ Urinals inspected	243
Total number of premises inspected	<u>8387</u>

NUMBER OF NUISANCES ABATED

IN THE FOLLOWING YEARS :—

In 1856 ... 1567	In 1864 ... 1410	In 1871 ... 5180
„ 1857 ... 1789	„ 1865 ... 1512	„ 1872 ... 3909
„ 1858 ... 2515	„ 1866 ... 4260	„ 1873 ... 5406
„ 1859 ... 1224	„ 1867 ... 5811	„ 1874 ... 6110
„ 1860 ... 1267	„ 1868 ... 3923	„ 1875 ... 6262
„ 1861 ... 2487	„ 1869 ... 4354	„ 1876 ... 6445
„ 1862 ... 1235	„ 1870 ... 4240	„ 1877 ... 6257
„ 1863 ... 1696		

